Raytheon
Customer Success Is Our Mission

Raytheon JPS Communications
IWCE 2007

Dealer New Product Introduction & Training
ACU / Intelligent Interconnect

ACU Technology

- Mission Critical Radio Interoperability
  - Provides Interoperable Communications between disparate communication systems:
    - ☐ HF
    - ☐ VHF
    - ☐ UHF
    - ☐ P25
    - ☐ Trunk
    - ☐ Conventional
    - ☐ iDEN
    - ☐ Satellite
    - ☐ PSTN
    - ☐ SIP
    - ☐ Encrypted Radio
    - ☐ Secure Telephone Units (STU-III)

ACU-1000

ACU-T

ACU-M

TRP-1000

ACU Technology

- Mission Critical Radio Interoperability
  - The ACU has become the most deployed Communication Interoperability devices in Public Safety and Fire Services
  - VoIP / RoIP Capable
  - SIP (Session Initiation Protocol) Capable
  - Easy setup with or without computer
  - Controllable with or without computer

ACU-1000

ACU-T

ACU-M

TRP-1000

ACU Technology

- Mission Critical Radio Interoperability
  - Flexible design is backwards compatible and readily upgradeable as technology advances
  - Architecture is scalable:
    - Local Interoperability
    - Regional / County-Wide Interoperability
    - State-Wide Interoperability
    - Multi-State Interoperability
    - Nation-Wide Interoperability

ACU-1000

ACU-T

ACU-M

TRP-1000

ACU Technology

- Mission Critical Radio Interoperability
  - DSP (Digital Signal Processor) Algorithms used in all audio modules provide:
    - TX/RX Audio Delay
    - Time-Domain Noise Reduction
    - VOX Detection
    - Voice Modulation Recognition (VMR)
    - DTMF Detection / Generation
    - PSTN Adaptive Hybrid
    - Transmitter Keying Tones

TRP-1000

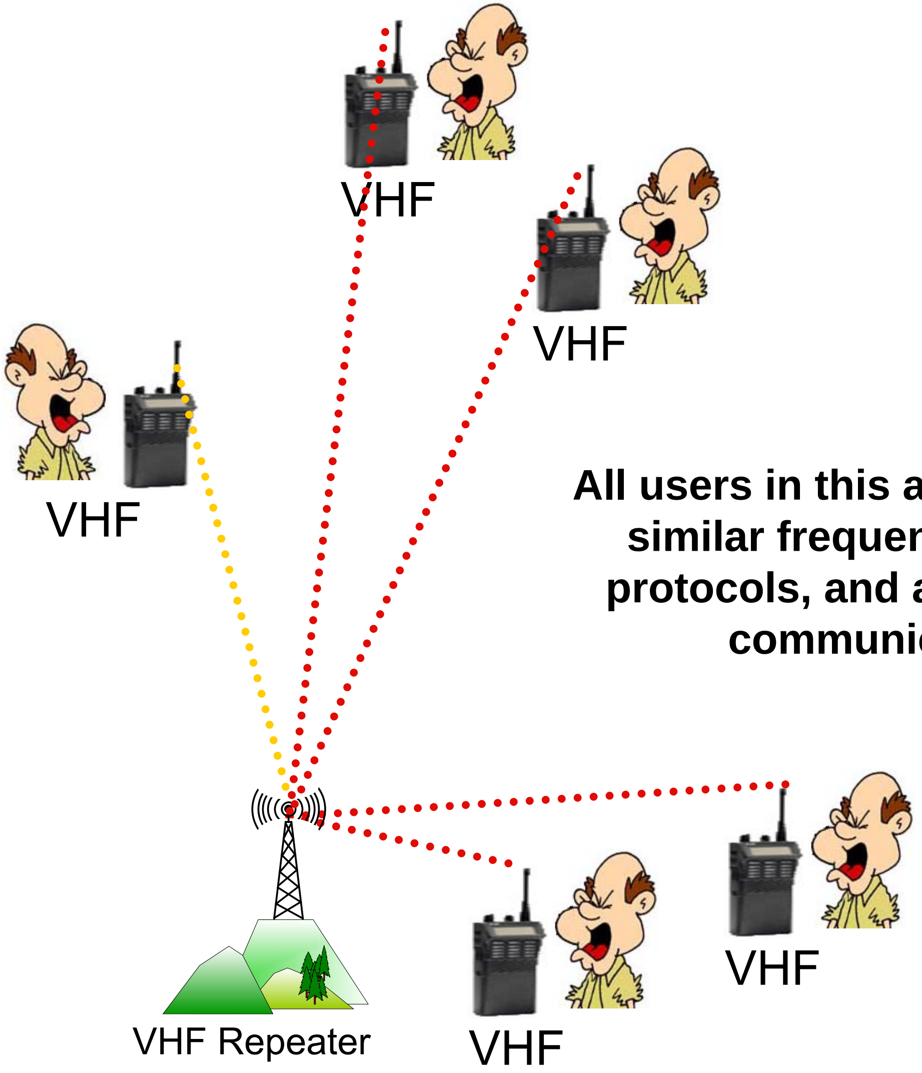
ACU-1000

ACU-T

ACU-M

Communication Interoperability

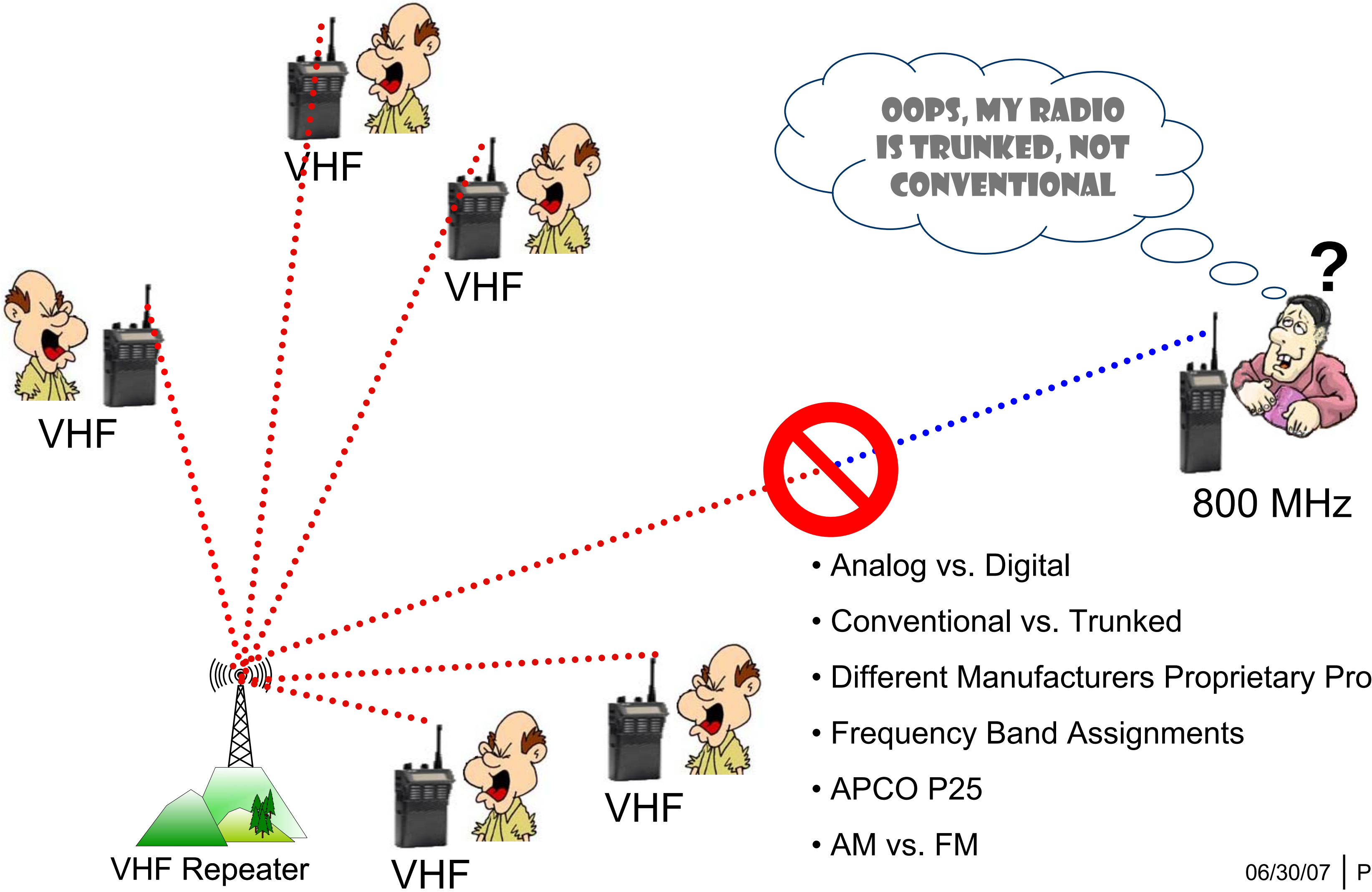
- Why can't we talk to each other?



All users in this agency uses similar frequencies and protocols, and are able to communicate

Communication Interoperability

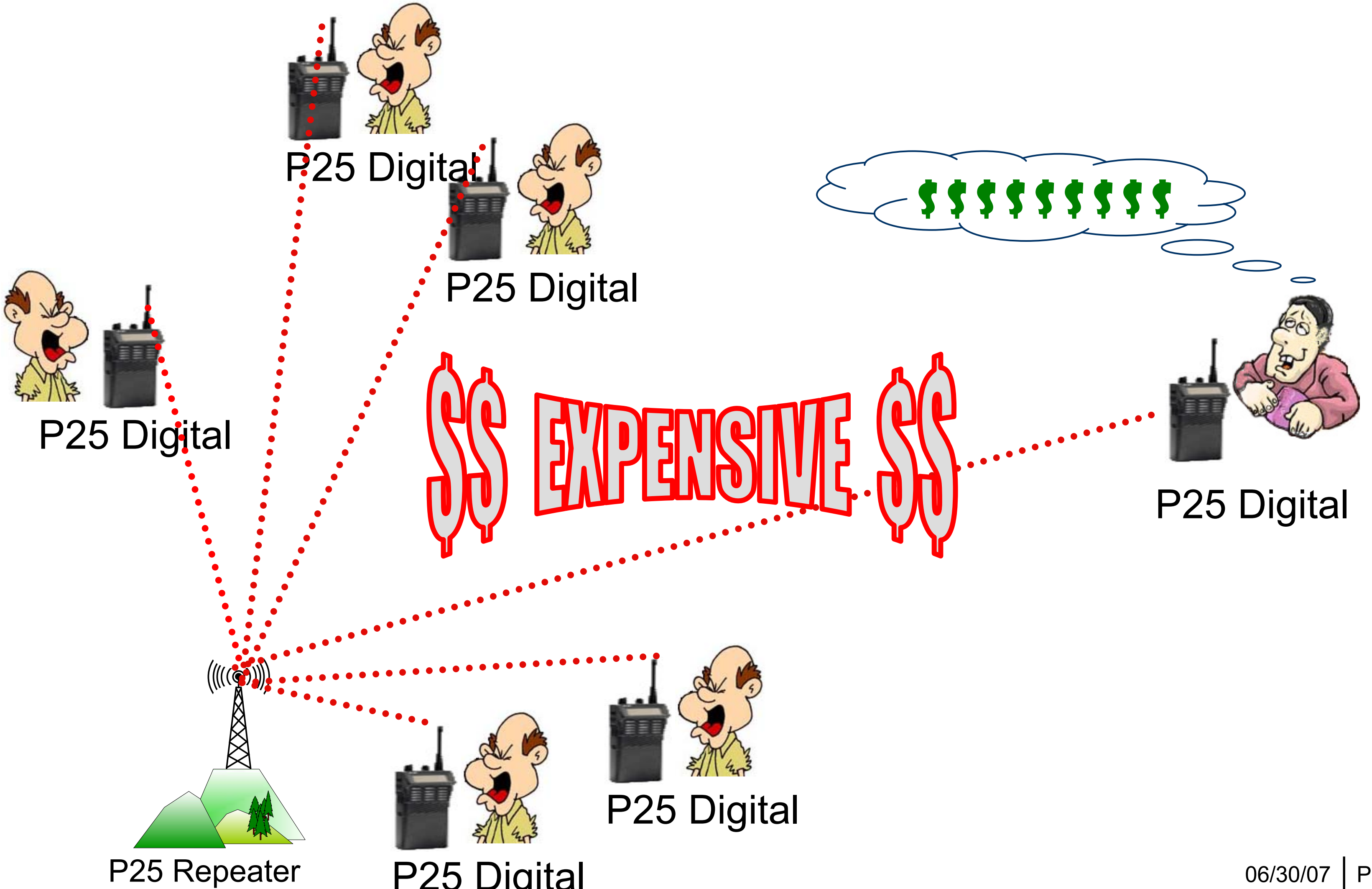
- Why can't we talk to each other?


VHF
VHF
VHF
OOPS, MY RADIO IS TRUNKED, NOT CONVENTIONAL
?
800 MHz
VHF
VHF
VHF Repeater

- Analog vs. Digital
- Conventional vs. Trunked
- Different Manufacturers Proprietary Protocols
- Frequency Band Assignments
- APCO P25
- AM vs. FM

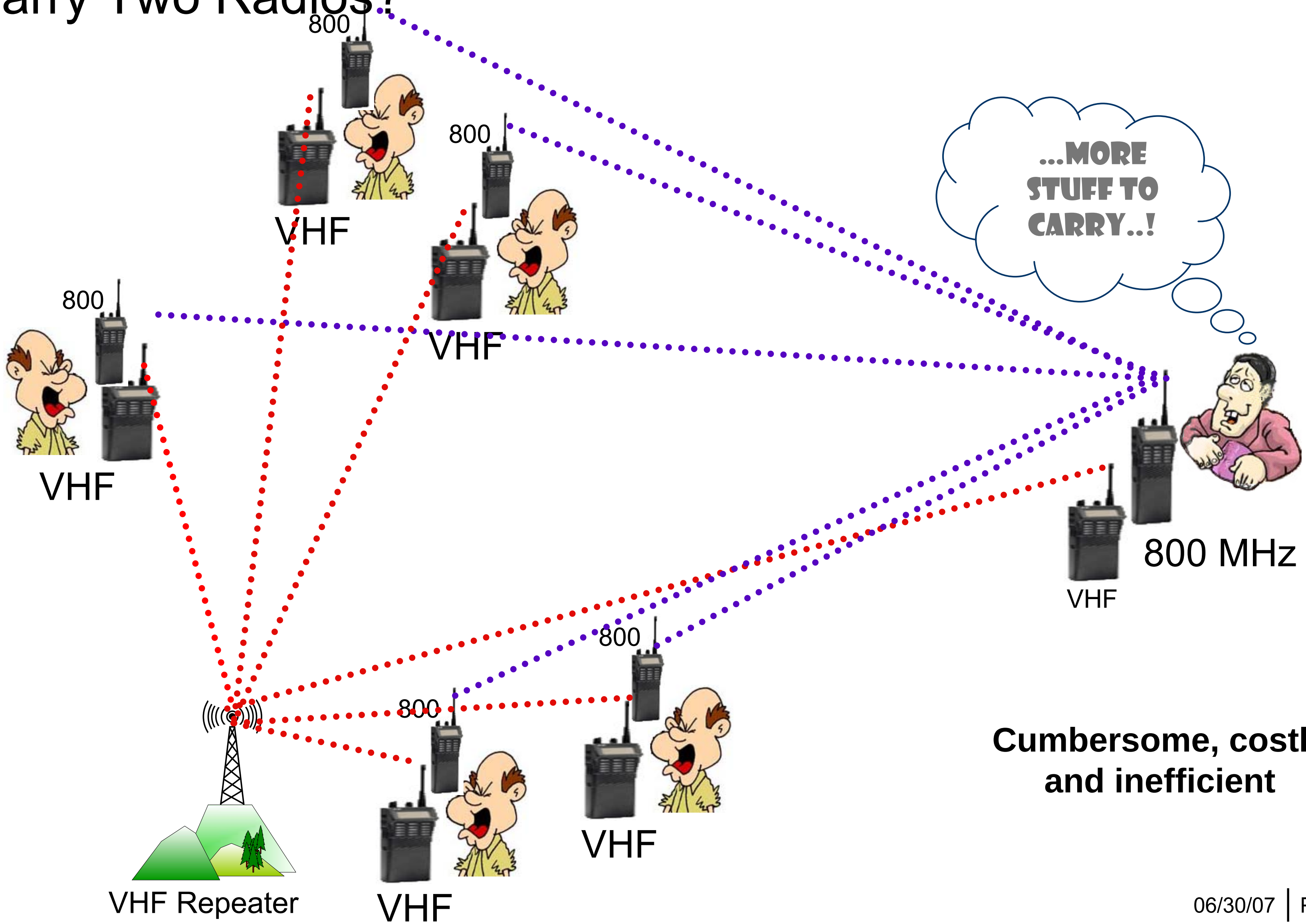
Communication Interoperability

- Let's replace the whole system?



Communication Interoperability

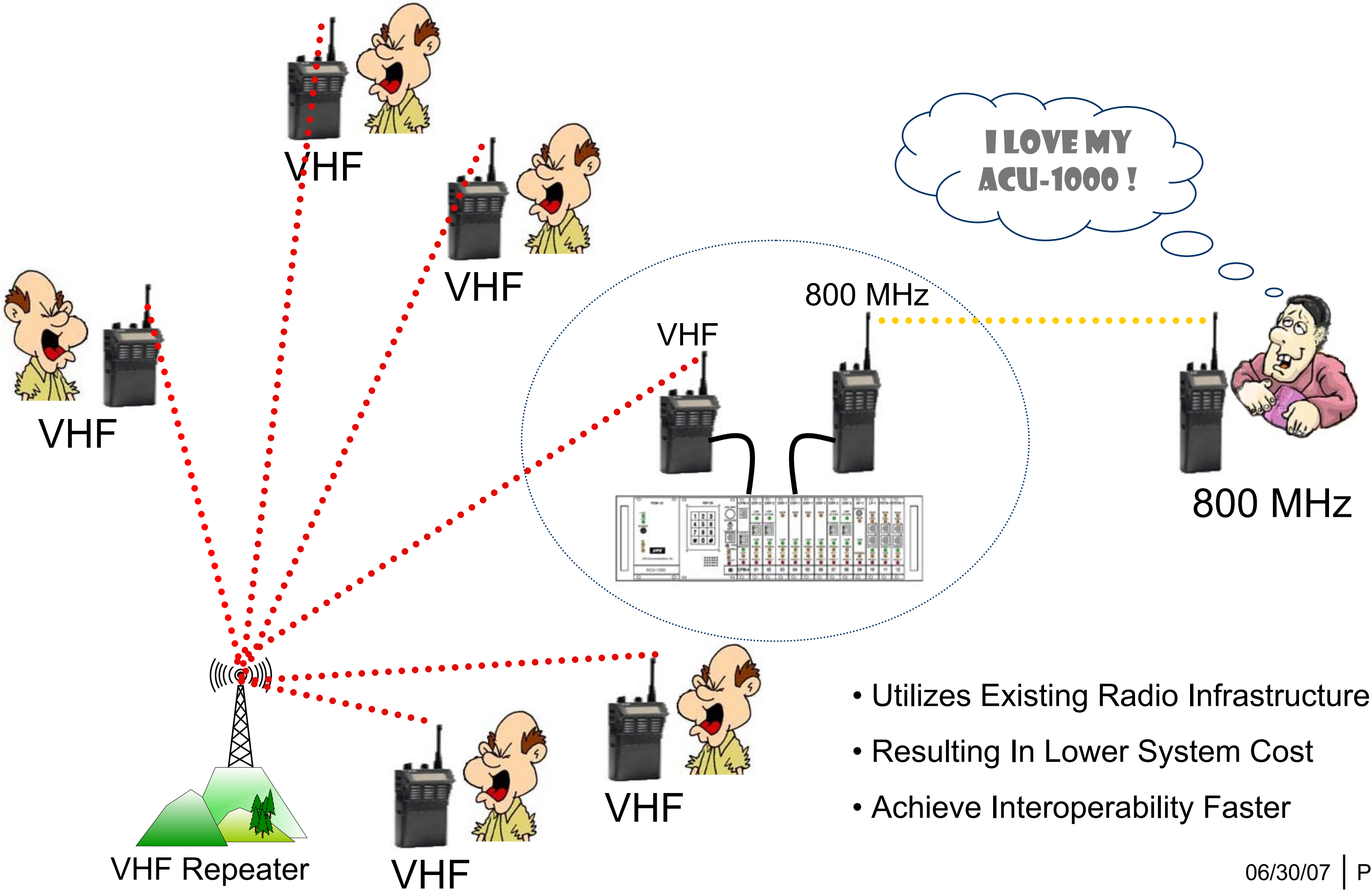
- Carry Two Radios?



Cumbersome, costly and inefficient

Communication Interoperability

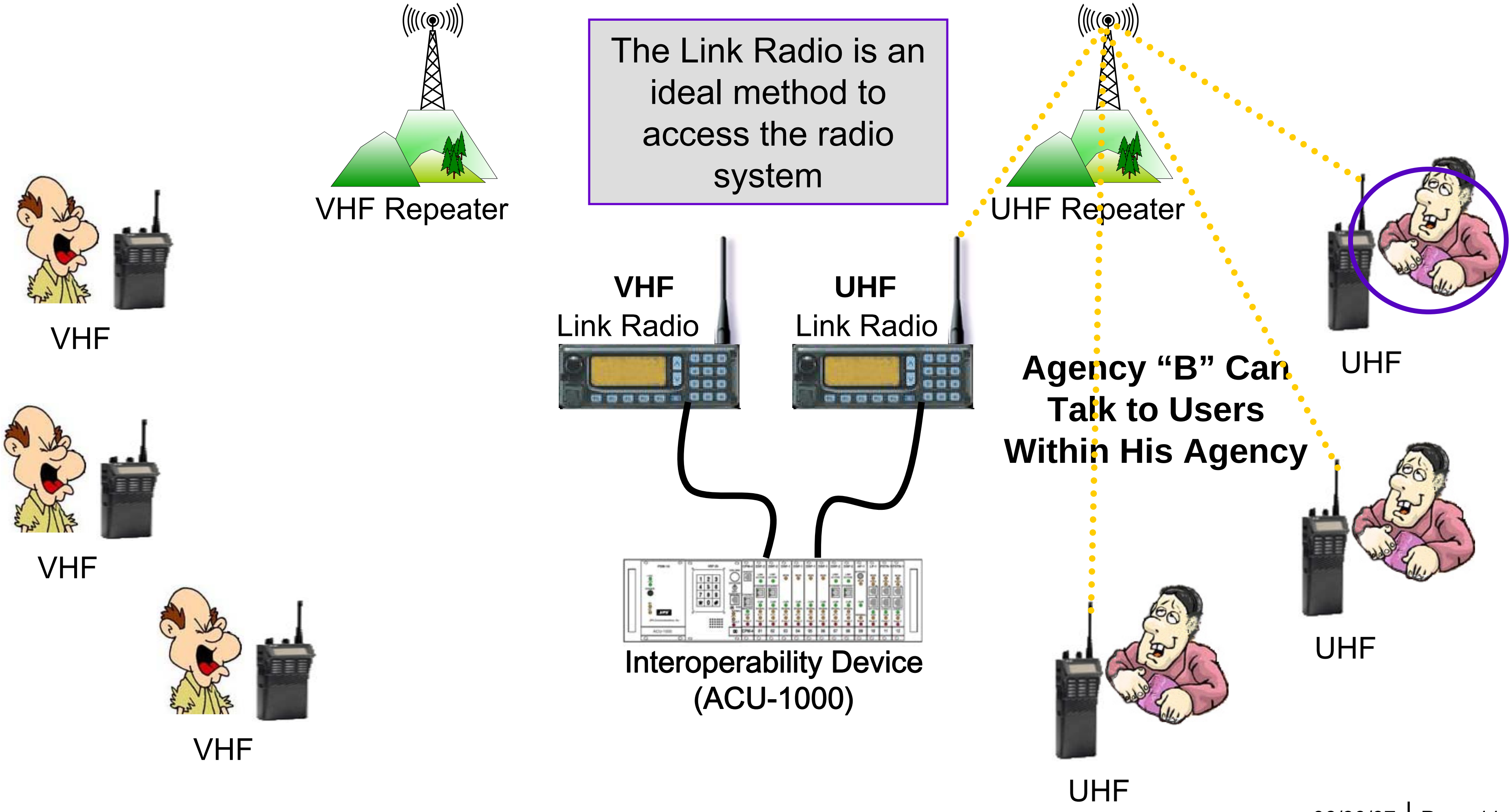
- How about the ACU-1000 as an audio bridge?



- Utilizes Existing Radio Infrastructure
- Resulting In Lower System Cost
- Achieve Interoperability Faster

Communication Interoperability

- The Basic ACU-1000 System?



VHF Repeater

The Link Radio is an ideal method to access the radio system

UHF Repeater

VHF
Link Radio

UHF
Link Radio

Agency “B” Can Talk to Users Within His Agency

Interoperability Device
(ACU-1000)

VHF

VHF

VHF

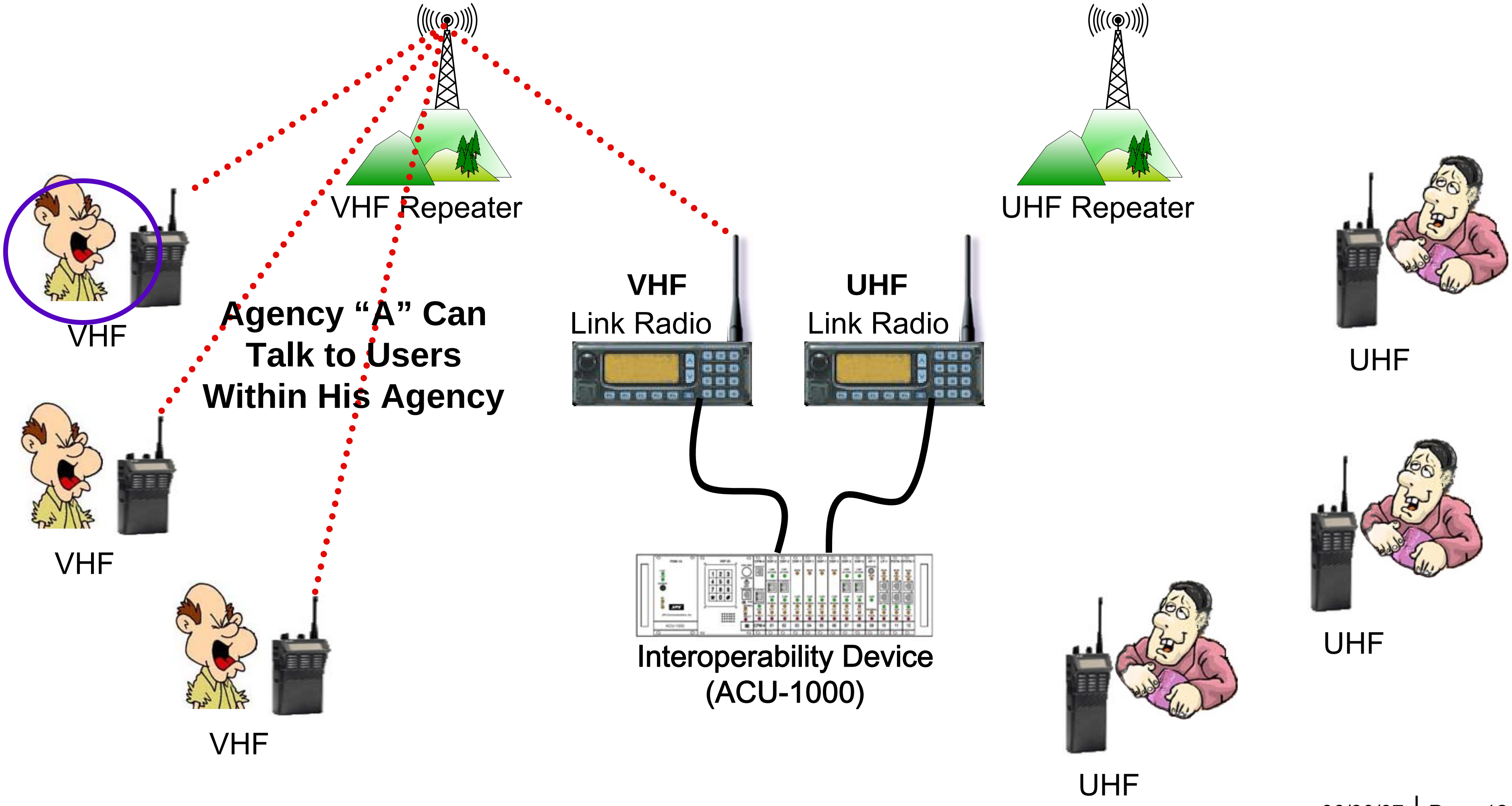
UHF

UHF

UHF

Communication Interoperability

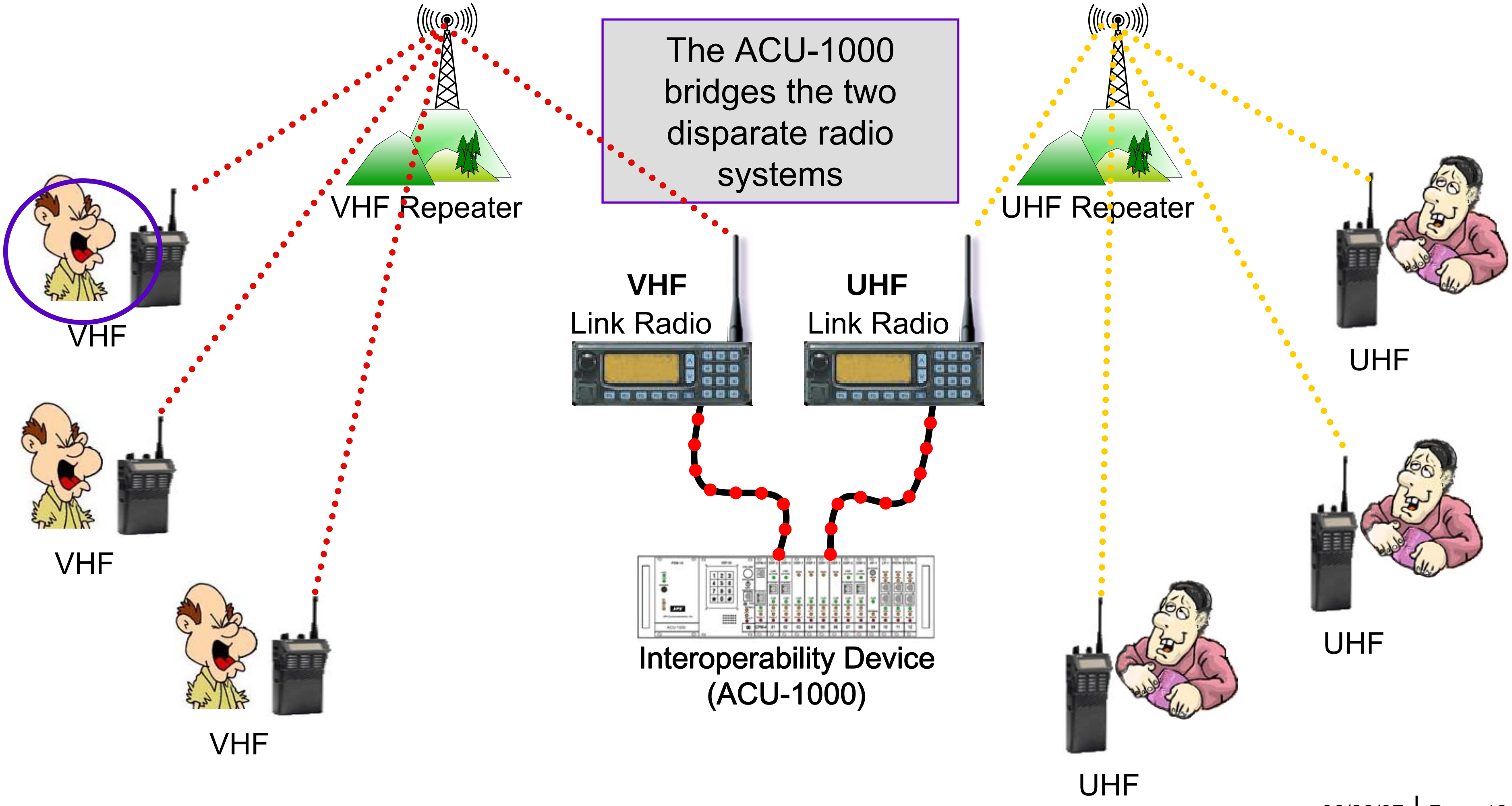
- The Basic ACU-1000 System?



Agency “A” Can Talk to Users Within His Agency

Communication Interoperability

- The Basic ACU-1000 System?



The ACU-1000 bridges the two disparate radio systems

Communication Interoperability

- Fixed Site Solution

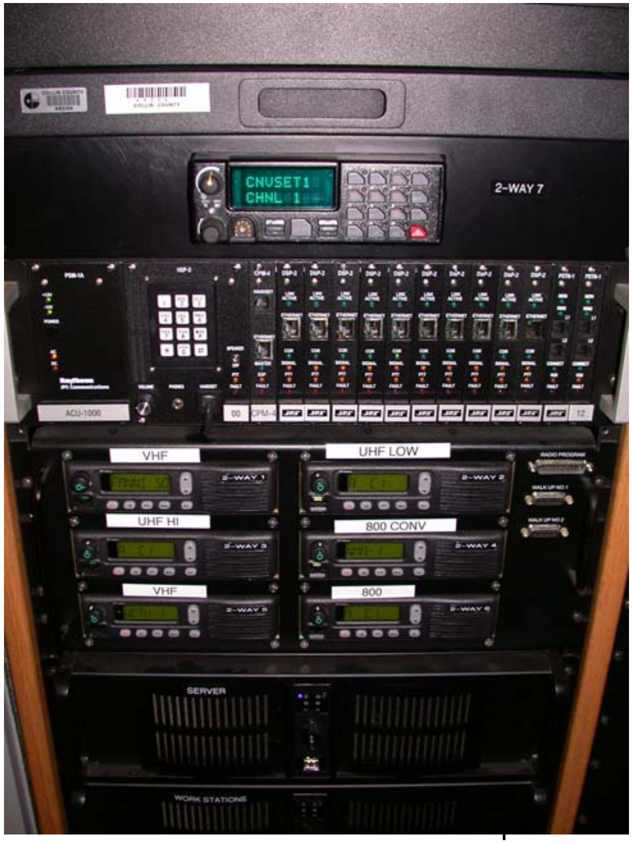
Fixed Installation located in Alexandria, VA

Wisconsin Emergency Management Agency

Communication Interoperability

- Mobile Solution

Ohio State EMA Vehicle



Collin County Texas DHS Vehicle

Communication Interoperability

- Transportable Solution

Transportable System (TRP-1000)
Fairfax County Communications
Alternate Emergency Operations Center (AEOC)

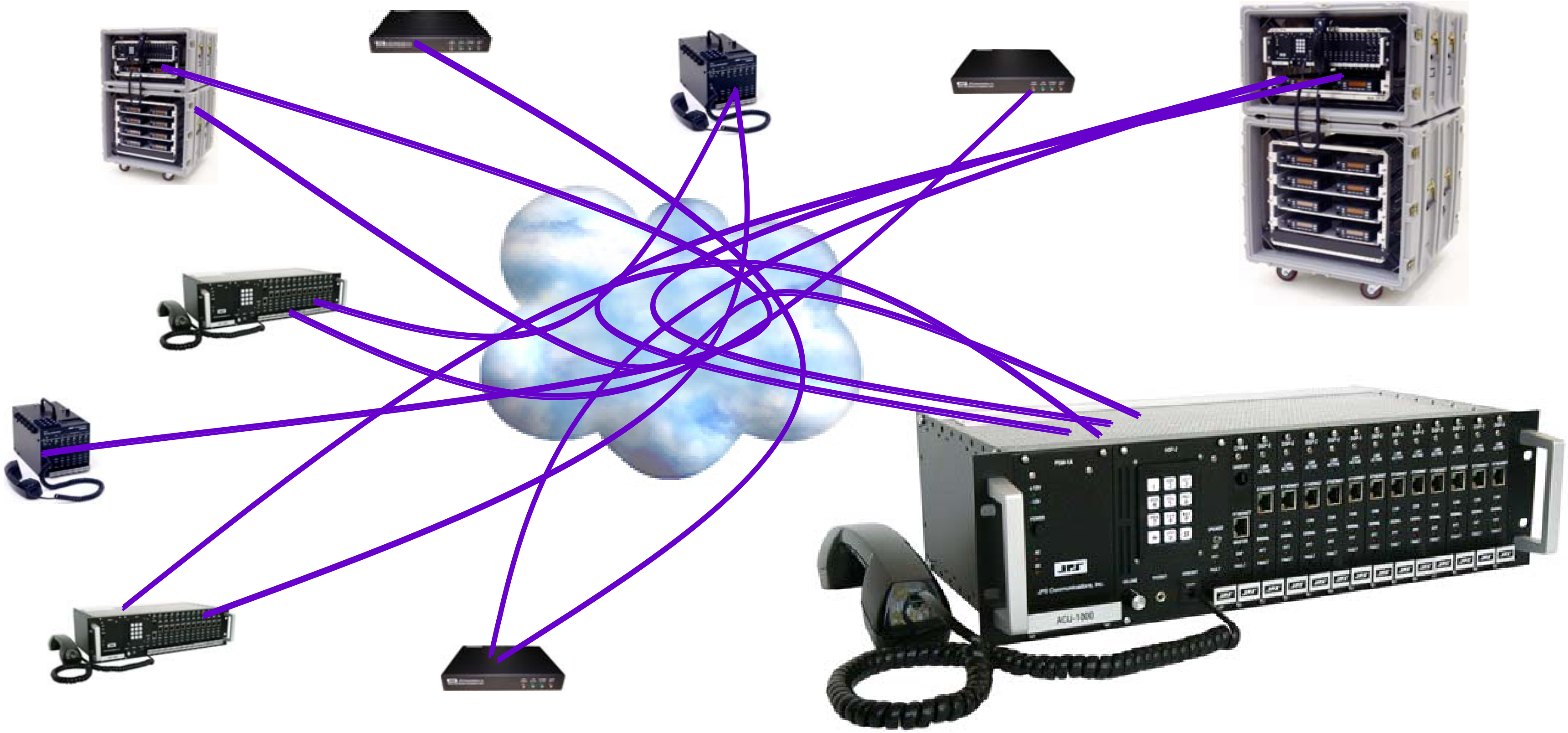
National Guard Interim Satellite
Incident Site Communications Set
(ISISCS)

Product Introduction

ACU-1000

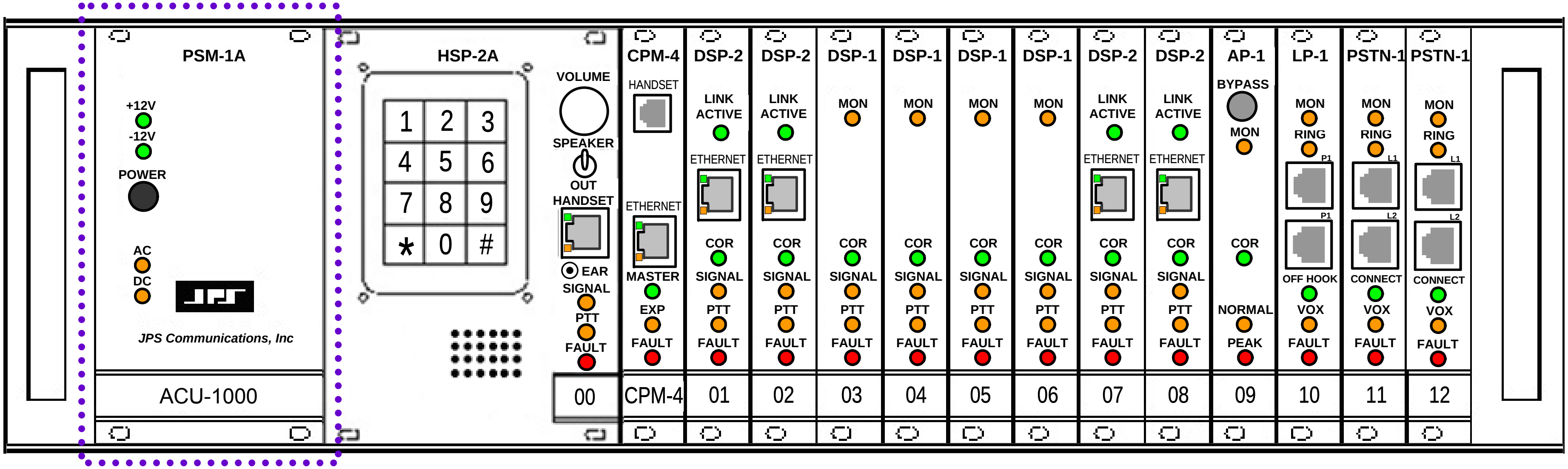
ACU-1000

- Mission Critical Radio Interoperability
  - The ACU-1000 is the building block of all JPS's interoperability products
    - Design, Networks and Protocols establish compatibility



ACU-1000

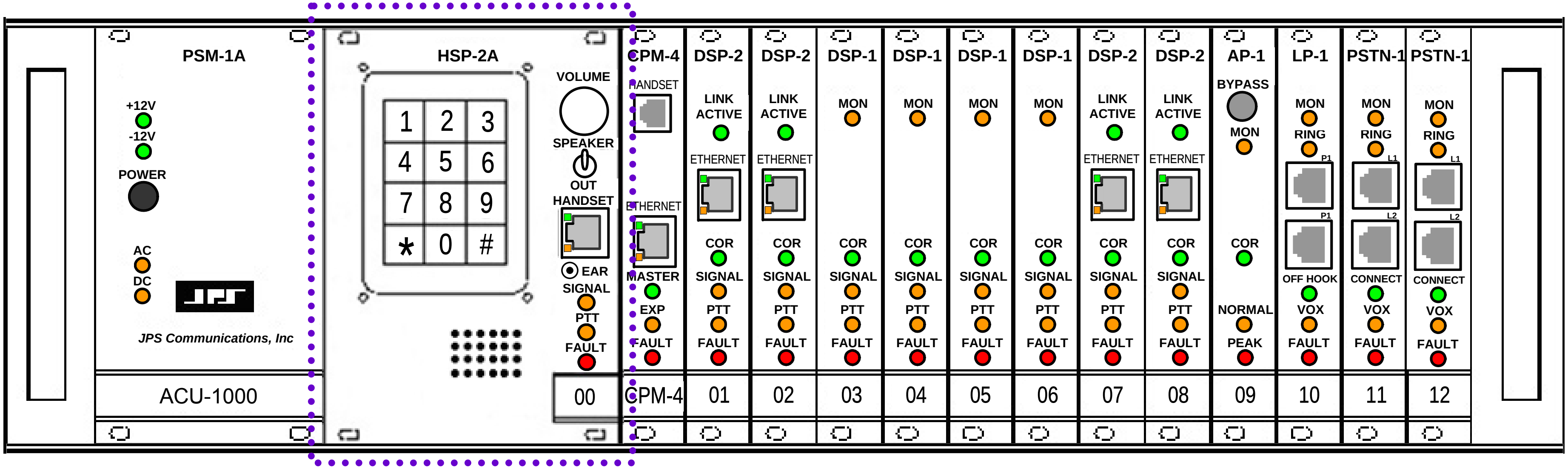
- Module Description



- PSM-1A: Power Supply Module
  - Accepts 120-VAC, 230-VAC, 12-VDC
  - Distributes regulated and unregulated DC to all other modules
  - Manages both AC and DC sources, simultaneously
  - Dissipates +100 watts
  - 1 amp battery charger, integral

ACU-1000

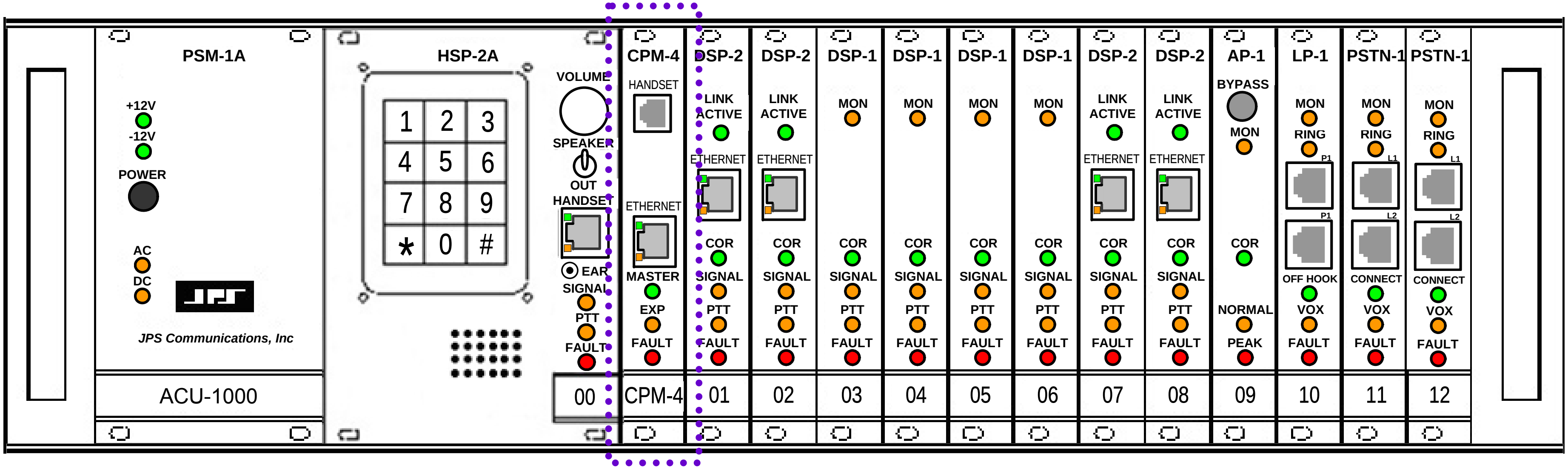
- Module Description



- HSP-2A: Handset Speaker Prompt Module
  - 3x4 Keypad for Local Control
  - Dynamic PTT Handset for Local Operator
  - Amplified Internal / External Speaker
  - Voice Prompt, many languages

ACU-1000

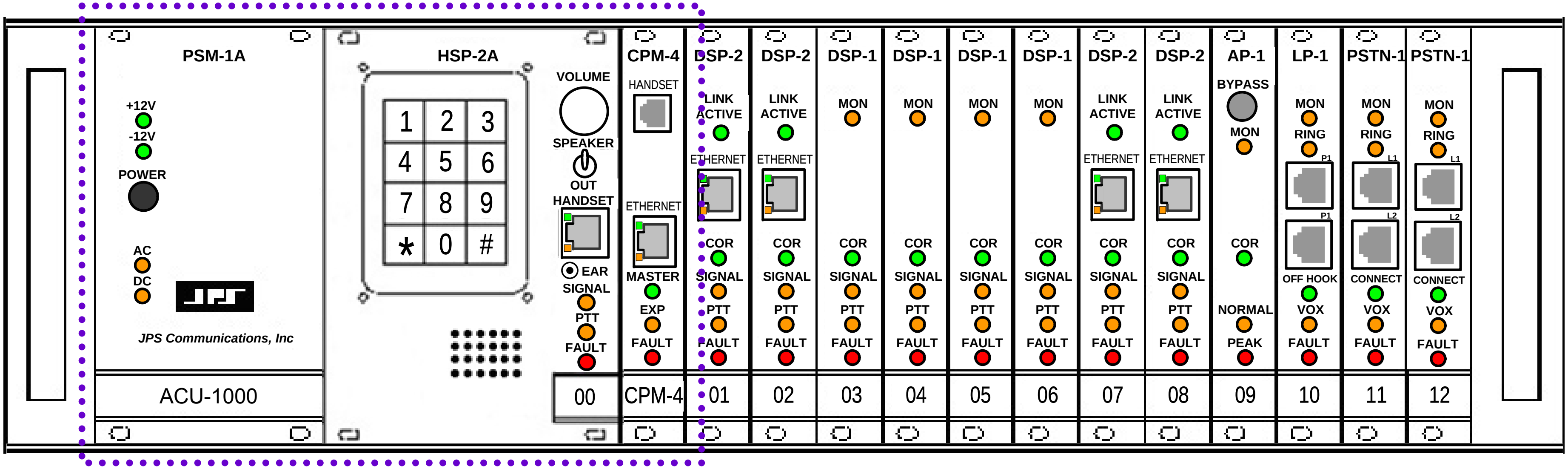
- Module Description



- CPM-4: Control Processor Module
  - Controls all modules
  - Arbitrates all audio distribution
  - Non-Volatile Memory of chassis and module configurations
  - VoIP / RoIP Capable
  - Allows either network, serial or keypad control

ACU-1000

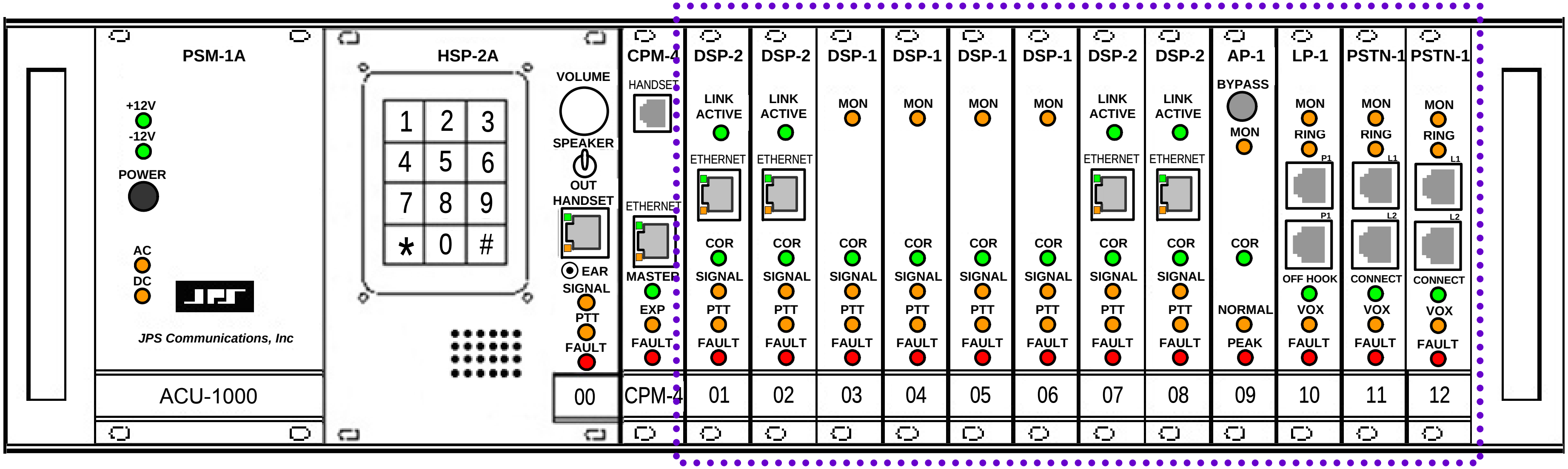
- Module Description



- Required Modules
  - They must reside in these slots
  - HSP-2A module if missing or damaged will not cripple the remaining system
  - The HSP-2A and the CPM-4 modules are hot-pluggable

ACU-1000

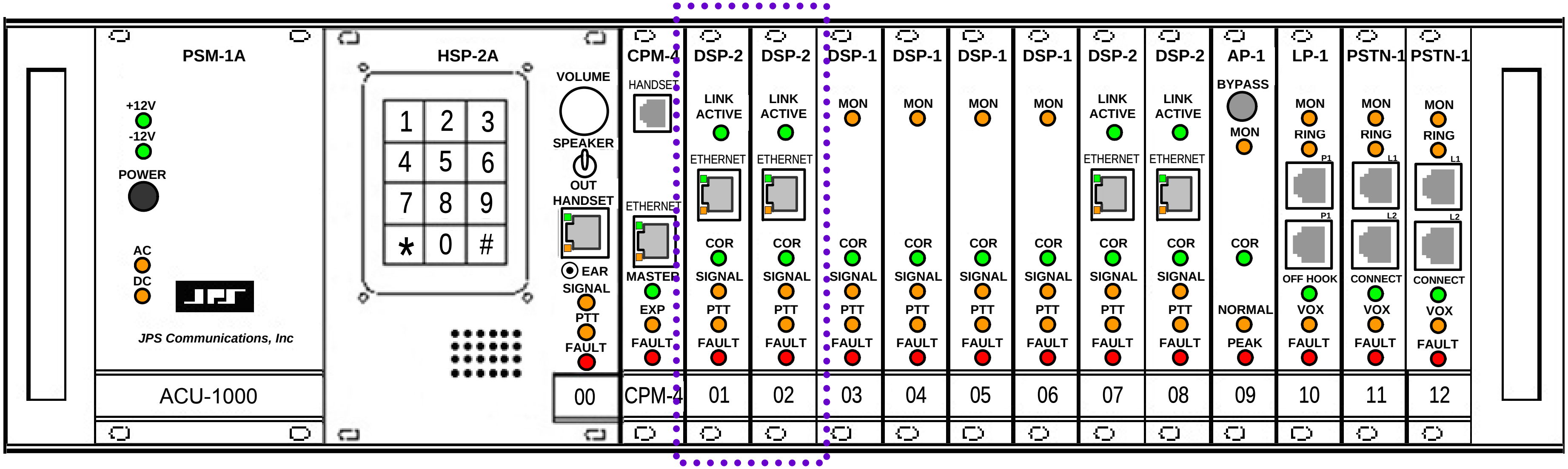
- Module Description



- Interface Modules
  - Interface Modules access the audio and control signals from the communication assets, such as link radios, PSTN circuits, Satcom terminals, etc.
  - They reside in the 12 remaining slots
  - The Interface Modules can be mixed and match to the solution
  - The Interface Modules are hot-pluggable

ACU-1000

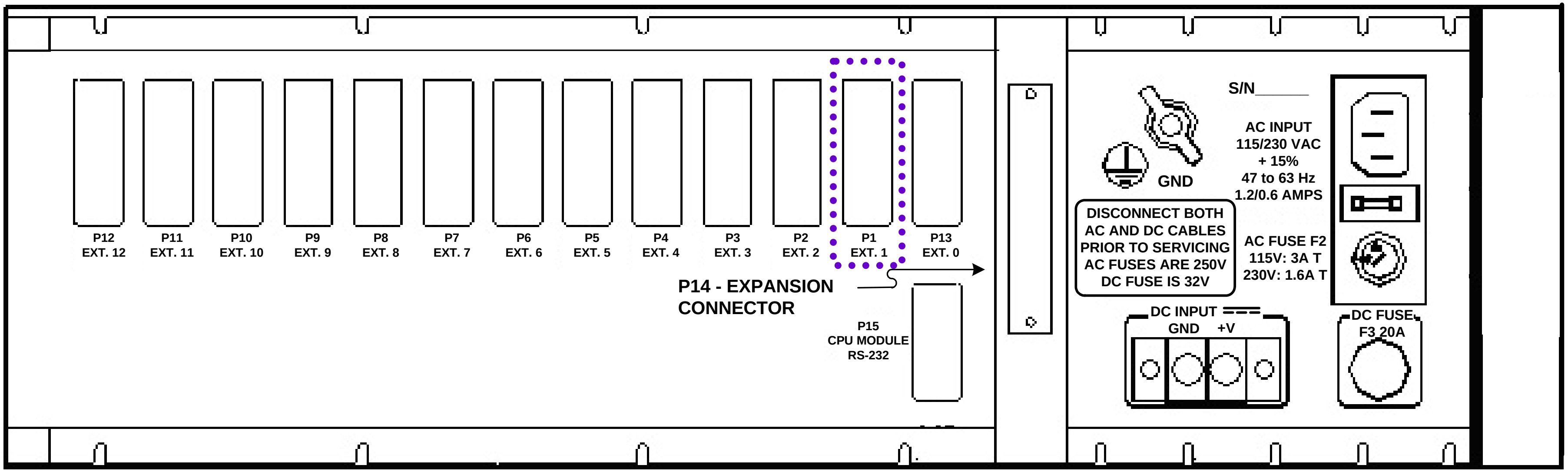
- Module Description



- DSP-2: Radio Interface Module
  - Three Modes: Classic, Hybrid, Standalone
    - ***Classic Mode*** – Interfaces Land Mobile Radios, 4-Wire Devices, Dispatch Consoles, Basestations, Satcom Terminals, etc
    - ***Hybrid Mode*** – VoIP/RoIP Gateway between the ACU communication assets and the network
    - ***Standalone Mode*** – Exclusively converts radio baseband audio directly to VoIP/RoIP

ACU-1000

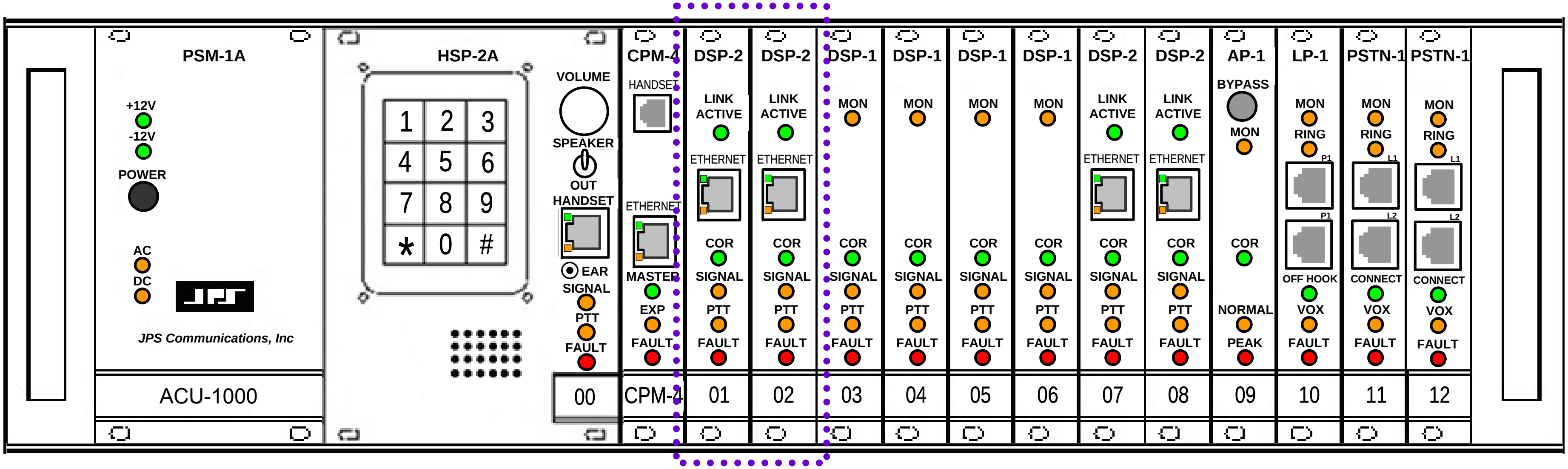
- Module Description



- Rear Chassis Module Interface
  - Each DSP Module has its own DB-15 audio connection to access:
    - ☐ Received Audio
    - ☐ Transmitted Audio
    - ☐ PTT Control Signal
    - ☐ COR Control Signal
    - ☐ RS-232 TX/RX Data (Special Applications)

ACU-1000

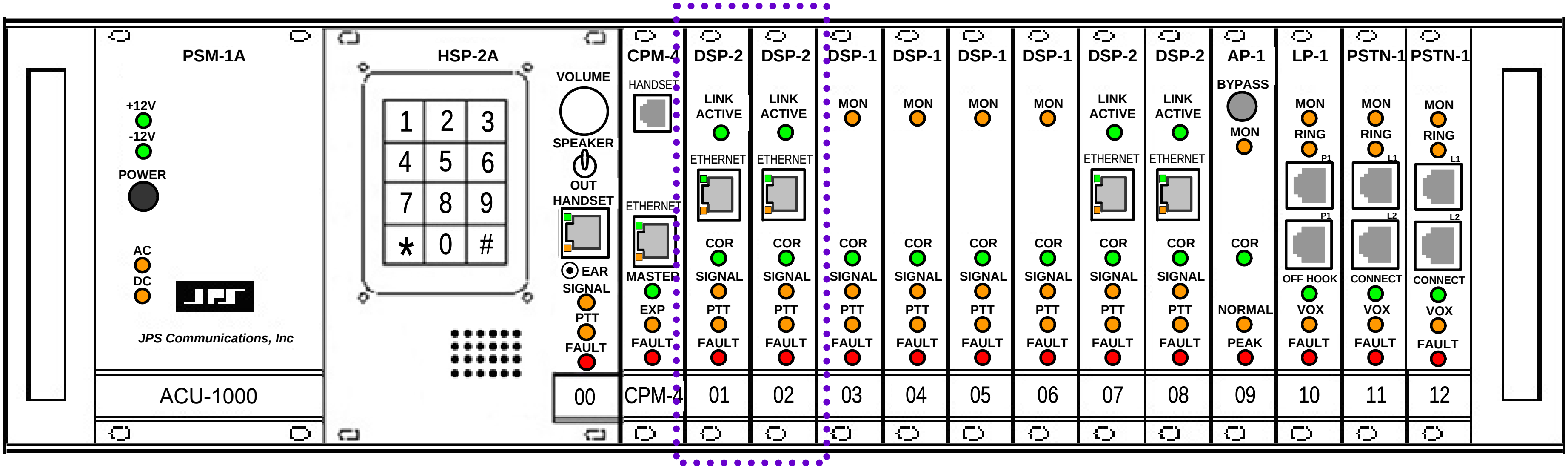
- Module Description



- DSP-2: Radio Interface Module
  - Digital Signal Processing, integral:
    - ☐ RX Audio Delay
    - ☐ TX Audio Delay
    - ☐ VOX Detection
    - ☐ VMR Detection
    - ☐ Noise Reduction
    - ☐ Equalizer
    - ☐ DTMF Detection
    - ☐ Transmitter Keying Tone Generator

ACU-1000

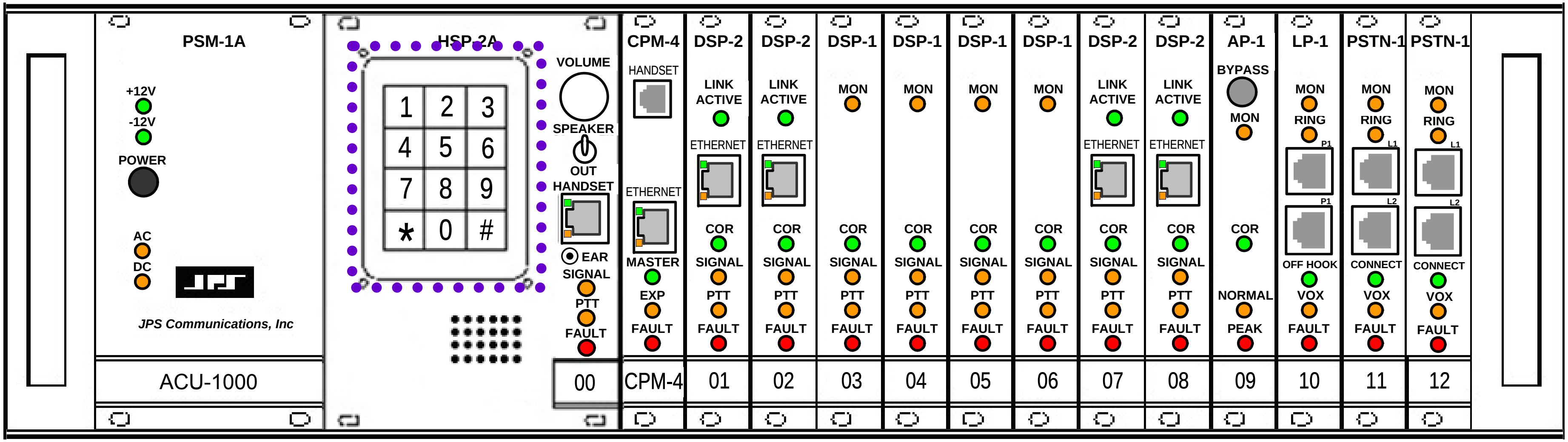
- Module Description



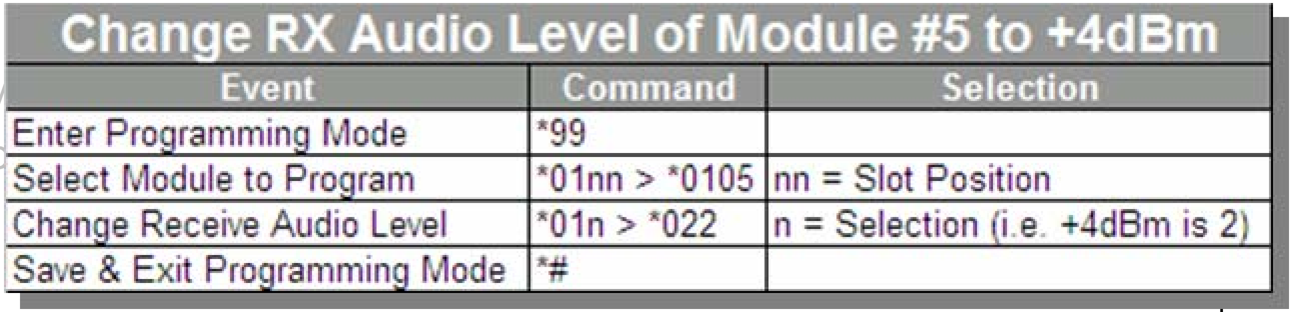
- DSP-2: Radio Interface Module
  - Hybrid Mode
    - ☐ Derives baseband audio from backplane and digitizes it.
    - ☐ The data is introduced to a TCP-IP network in the form of VoIP/RoIP
    - ☐ Digitized audio is then sent to other remote located JPS devices, such as other ACU's
    - ☐ No Interface Cable is connected to rear DB-15 connection

ACU-1000

- Module Description



- DSP-2: Radio Interface Module
  - Configuring the DSP-2 Module
    - ☐ HSP-2x Keypad
    - ☐ ACU Controller M
    - ☐ Web Configuratio



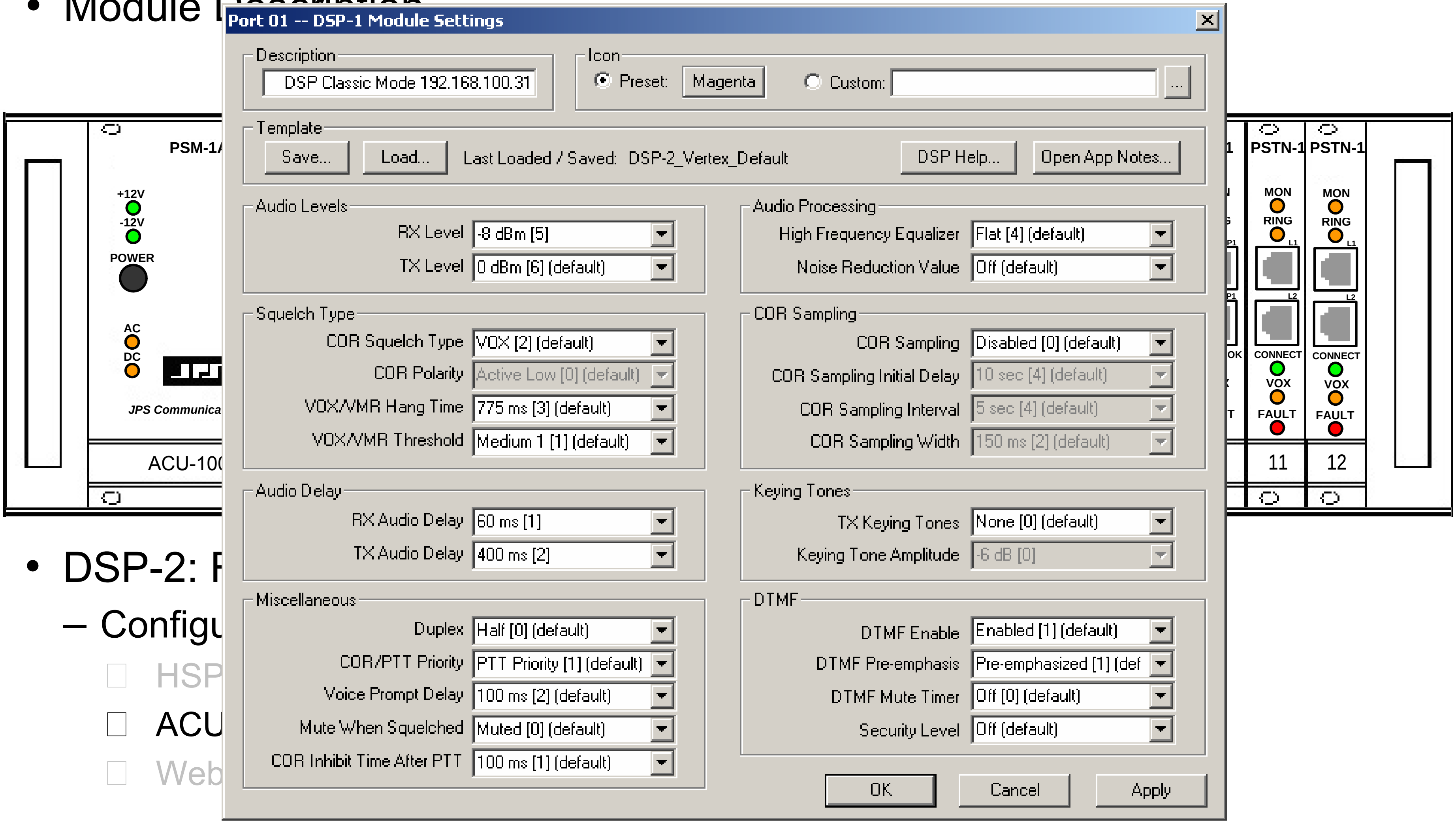
Change RX Audio Level of Module #5 to +4dBm

Event	Command	Selection
Enter Programming Mode	*99	
Select Module to Program	*01nn > *0105	nn = Slot Position
Change Receive Audio Level	*01n > *022	n = Selection (i.e. +4dBm is 2)
Save & Exit Programming Mode	*#	

ACU-1000

Raytheon
JPS Communications, Inc.

- Module D



Port 01 -- DSP-1 Module Settings

Description
DSP Classic Mode 192.168.100.31

Icon
● Preset: Magenta
○ Custom:

Template
Save... | Load... | Last Loaded / Saved: DSP-2_Vertex_Default | DSP Help... | Open App Notes...

Audio Levels
RX Level: -8 dBm [5]
TX Level: 0 dBm [6] (default)

Squelch Type
COR Squelch Type: VOX [2] (default)
COR Polarity: Active Low [0] (default)
VOX/VMR Hang Time: 775 ms [3] (default)
VOX/VMR Threshold: Medium 1 [1] (default)

Audio Delay
RX Audio Delay: 60 ms [1]
TX Audio Delay: 400 ms [2]

Miscellaneous
Duplex: Half [0] (default)
COR/PTT Priority: PTT Priority [1] (default)
Voice Prompt Delay: 100 ms [2] (default)
Mute When Squelched: Muted [0] (default)
COR Inhibit Time After PTT: 100 ms [1] (default)

Audio Processing
High Frequency Equalizer: Flat [4] (default)
Noise Reduction Value: Off (default)

COR Sampling
COR Sampling: Disabled [0] (default)
COR Sampling Initial Delay: 10 sec [4] (default)
COR Sampling Interval: 5 sec [4] (default)
COR Sampling Width: 150 ms [2] (default)

Keying Tones
TX Keying Tones: None [0] (default)
Keying Tone Amplitude: -6 dB [0]

DTMF
DTMF Enable: Enabled [1] (default)
DTMF Pre-emphasis: Pre-emphasized [1] (def
DTMF Mute Timer: Off [0] (default)
Security Level: Off (default)

OK | Cancel | Apply

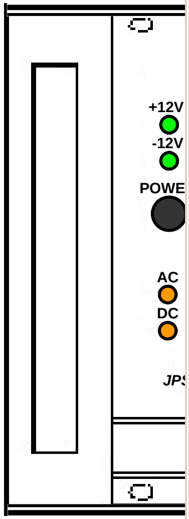
- DSP-2: F
  - Configu
    - ☐ HSP
    - ☐ ACU
    - ☐ Web

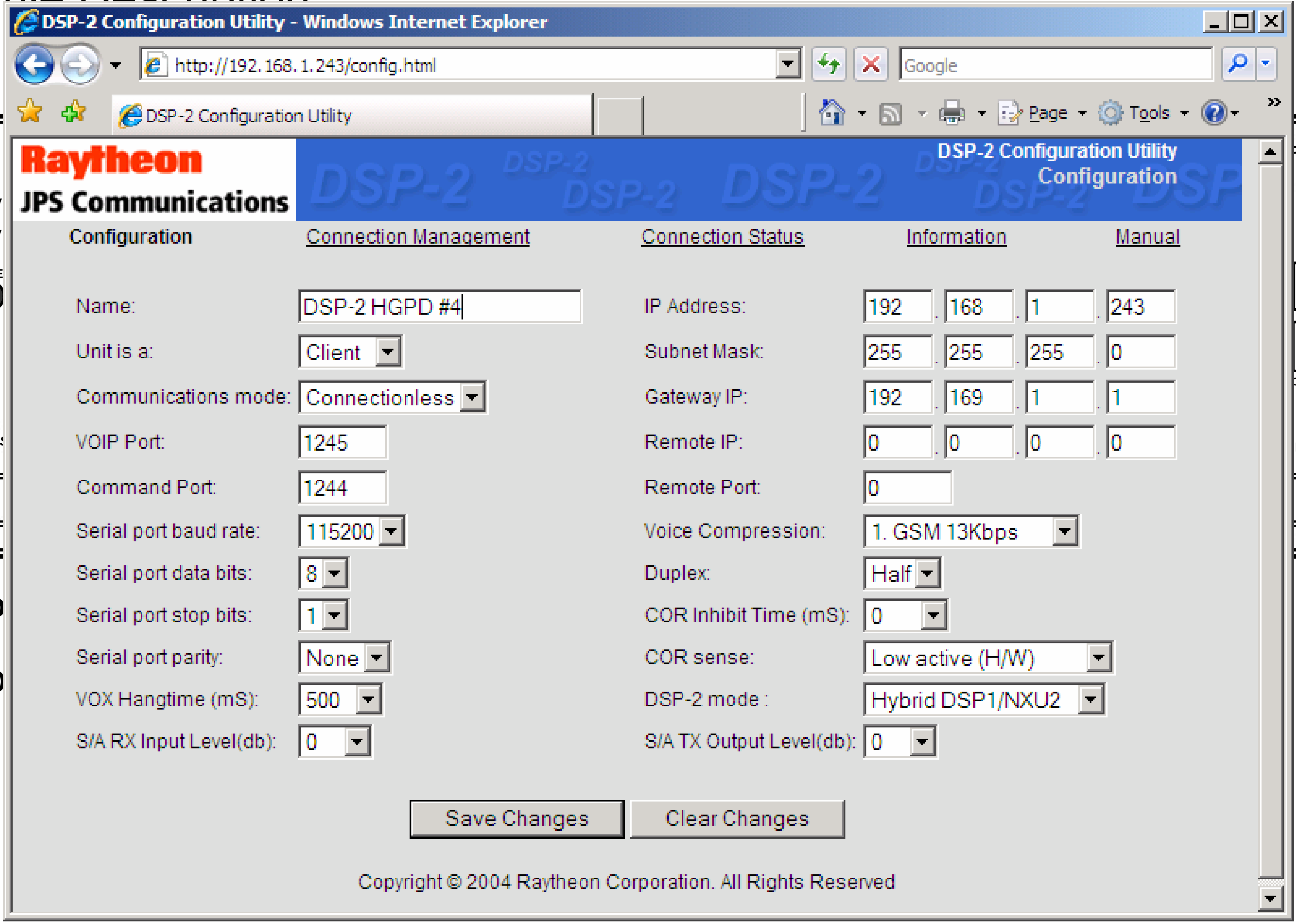
ACU Controller Module Setting Screen

ACU-1000

JPS Communications, Inc.

- Module Description




DSP-2 Configuration Utility - Windows Internet Explorer
http://192.168.1.243/config.html
Google
DSP-2 Configuration Utility
Page
Tools
Raytheon
JPS Communications
DSP-2 Configuration Utility
Configuration
Configuration
Connection Management
Connection Status
Information
Manual

Name: DSP-2 HGPD #4
Unit is a: Client
Communications mode: Connectionless
VOIP Port: 1245
Command Port: 1244
Serial port baud rate: 115200
Serial port data bits: 8
Serial port stop bits: 1
Serial port parity: None
VOX Hangtime (mS): 500
S/A RX Input Level(db): 0

IP Address: 192 . 168 . 1 . 243
Subnet Mask: 255 . 255 . 255 . 0
Gateway IP: 192 . 169 . 1 . 1
Remote IP: 0 . 0 . 0 . 0
Remote Port: 0
Voice Compression: 1. GSM 13Kbps
Duplex: Half
COR Inhibit Time (mS): 0
COR sense: Low active (H/W)
DSP-2 mode : Hybrid DSP1/NXU2
S/A TX Output Level(db): 0

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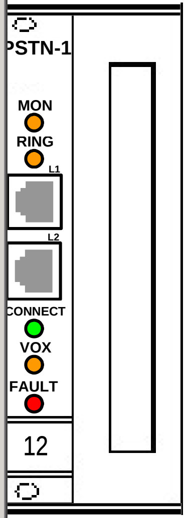
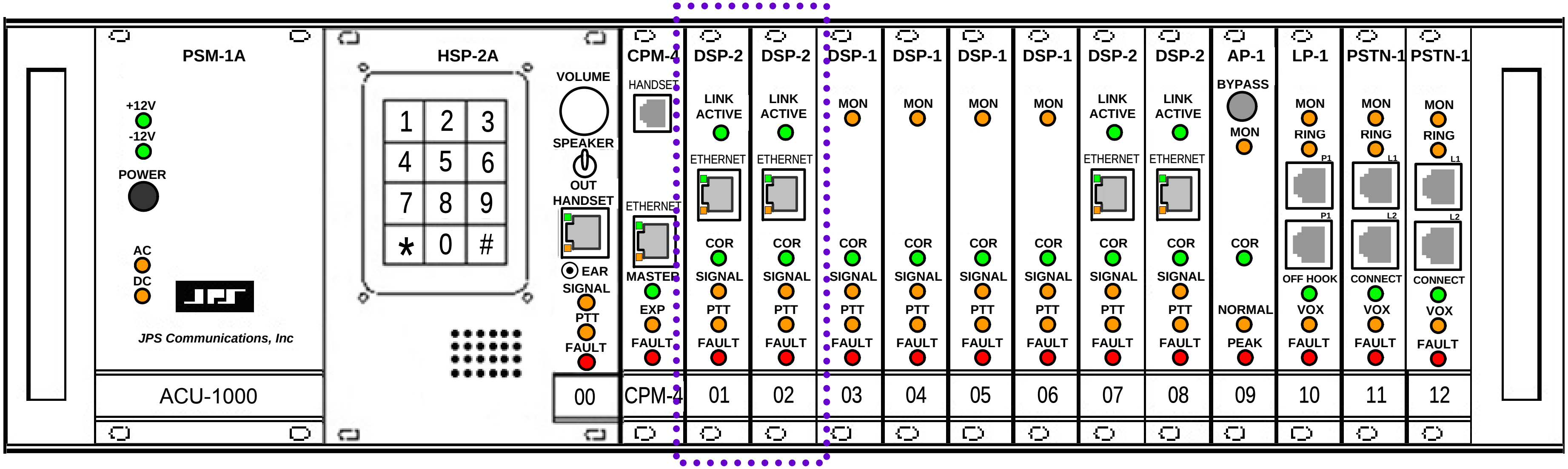


- DSP
  - Co
    - ☐
    - ☐
    - ☐

Web Configuration Utility

ACU-1000

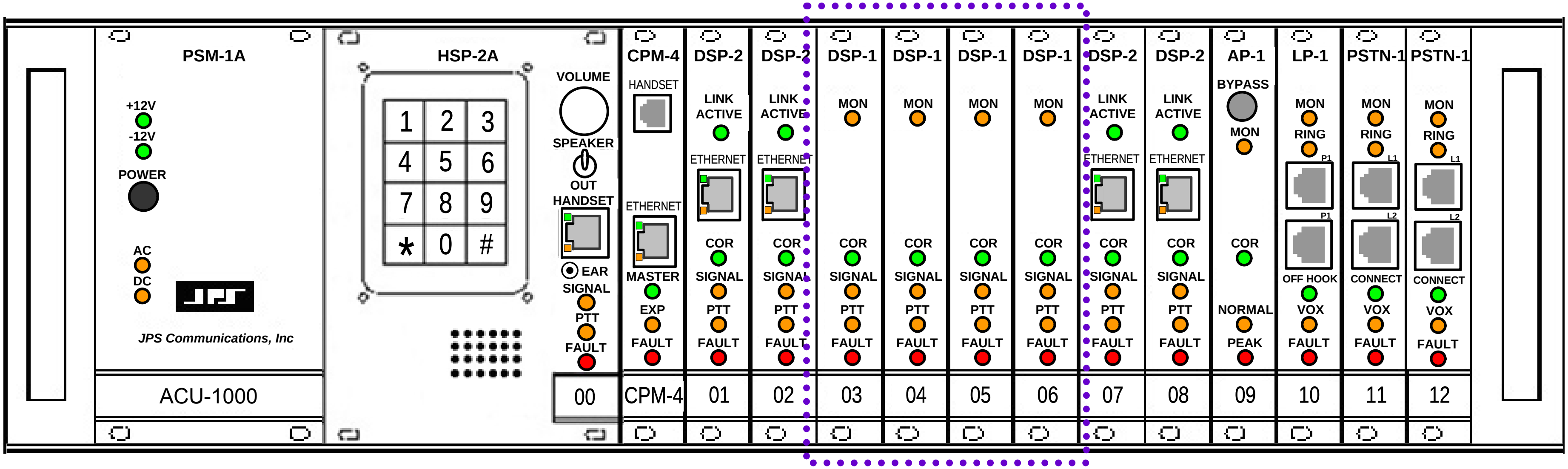
- Module Description



- DSP-2: Radio Interface Module
  - Specifications
    - ☐ RX Audio Input: -26 dBm to +12 dBm
    - ☐ RX Audio Delay: 100 msec to 300 msec
    - ☐ TX Audio Input: +12 dBm to -26 dBm
    - ☐ TX Audio Delay: 0 msec to 1600 msec
    - ☐ Hardwire COR, VOX, VMR
    - ☐ VOCODER: 5 settings
      - ☐ GSM 13kbps
      - ☐ ADPCM 16, 24, 32kbps
      - ☐ PCM 64kbps

ACU-1000

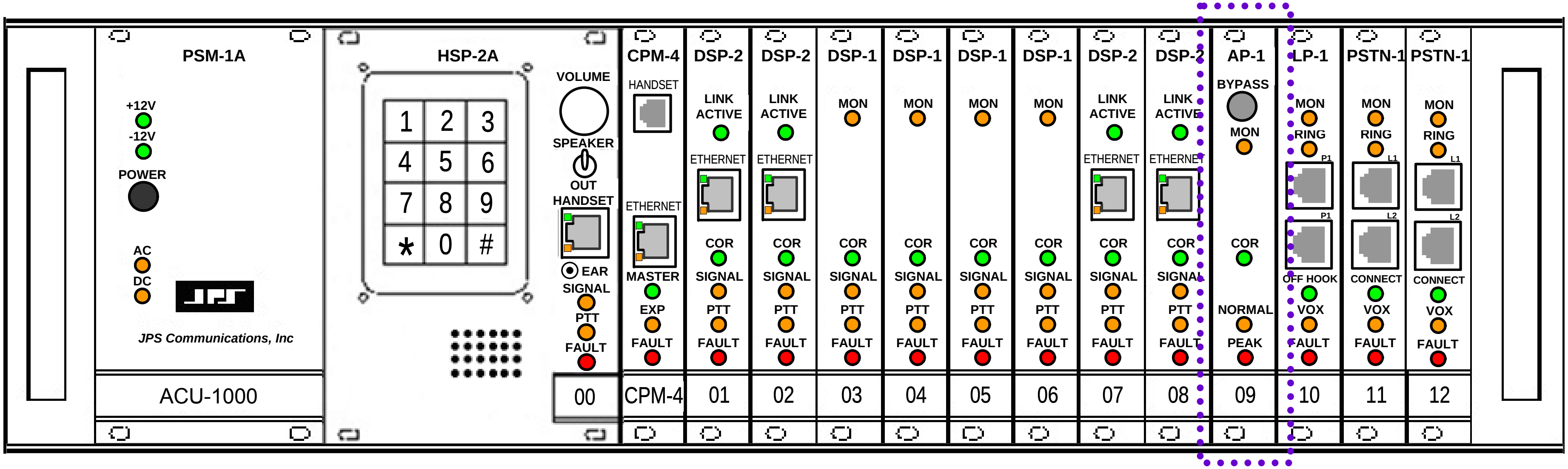
- Module Description



- DSP-1: Radio Interface Module
  - Obsolete
  - Has no VoIP/RoIP capabilities
  - DSP-1 still is a very good module!

ACU-1000

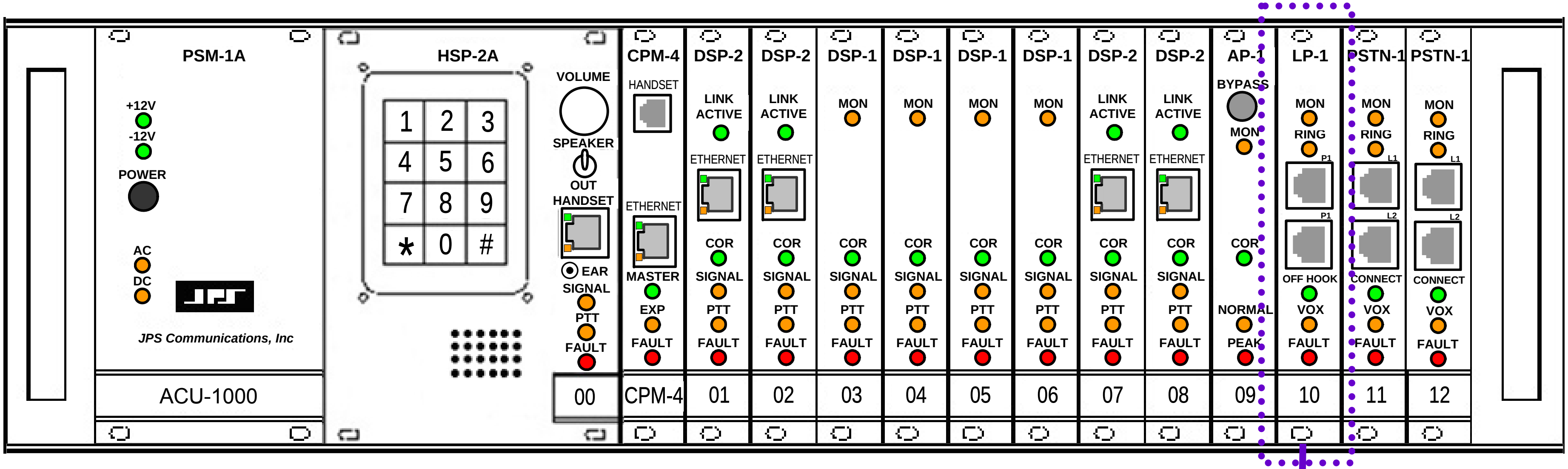
- Module Description



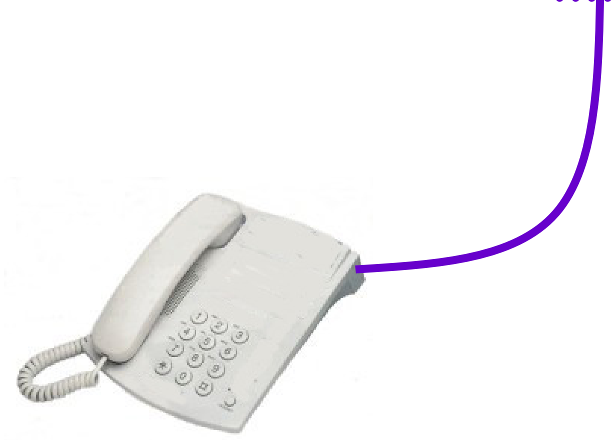
- AP-1: Audio Processor Module
  - Obsolete
  - Provides additional RX or TX audio delay up to 1575 msec to any specific complementary DSP module

ACU-1000

- Module Description

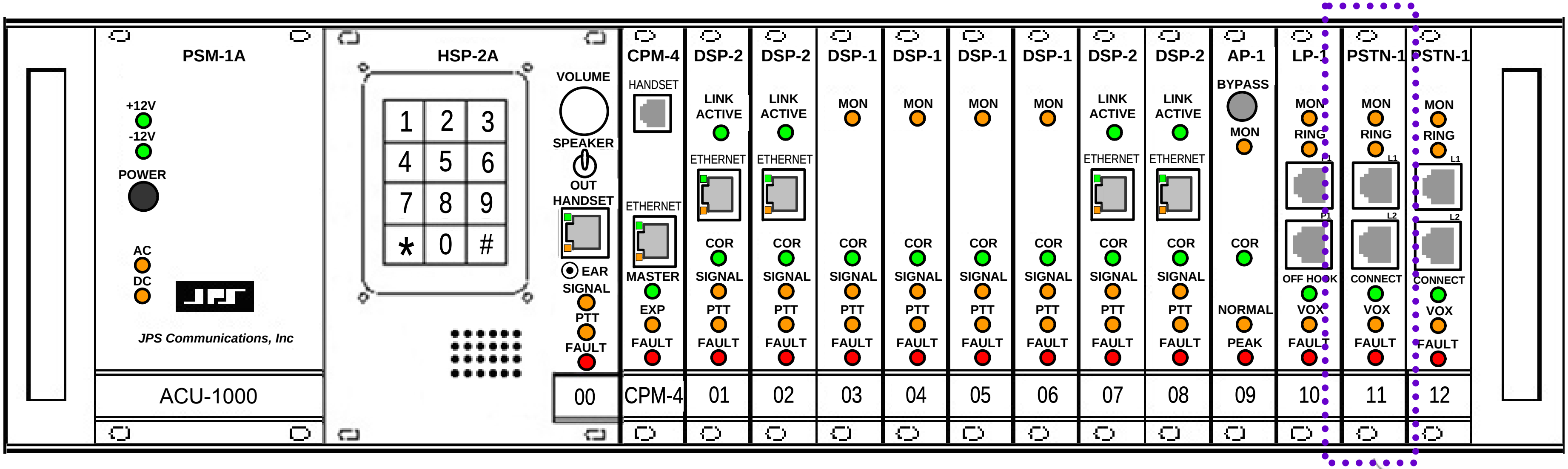


- LP-1: Local Phone Module
  - Interfaces typical telephone handset

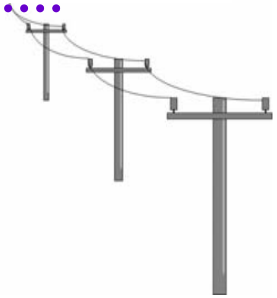


ACU-1000

- Module Description



- PSTN-1: PSTN Module
  - Interfaces to 2-wire analog switch circuit telephone system
  - Interfaces to 4-wire analog telephone systems
  - Adaptive Hybrid



ACU-1000

- Controlling the ACU-1000
  - DTMF Commands from remote devices

Connect my radio system to radio system supported by DSP module #5, enter press [*05]

RADIO-TO-RADIO

Connect to the radio system supported by DSP module #5, call the ACU-1000, listen to voice prompt, then press [*05]

DISTANT TELEPHONE-TO-RADIO

ACU-1000

- Controlling the ACU-1000
  - – DTMF Commands from remote devices
  - – Operational Commands using HSP-2x Keypad

HSP -TO-RADIO

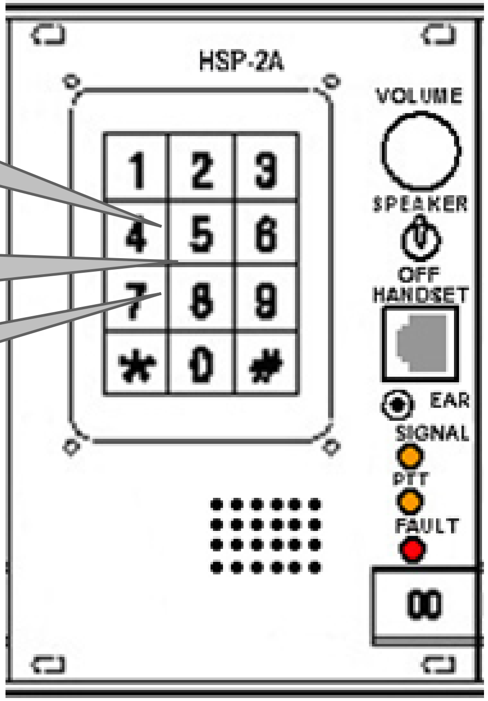
Connect the HSP handset to the radio system supported by module #7, press [*07]

DISCONNECT A RADIO

Disconnect module #8, press [*33 08]

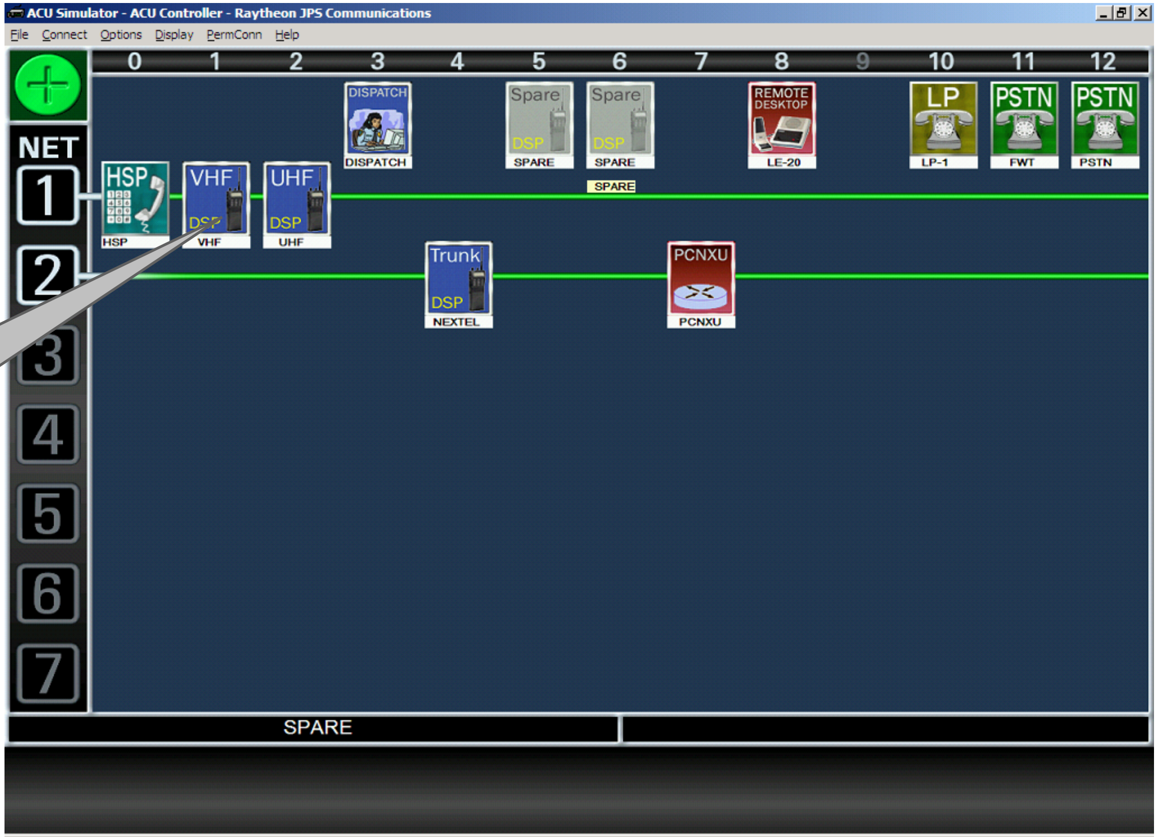
HSP -TO-DISTANT TELEPHONE

Make PSTN connection, press [*12 4082198011#]



ACU-1000

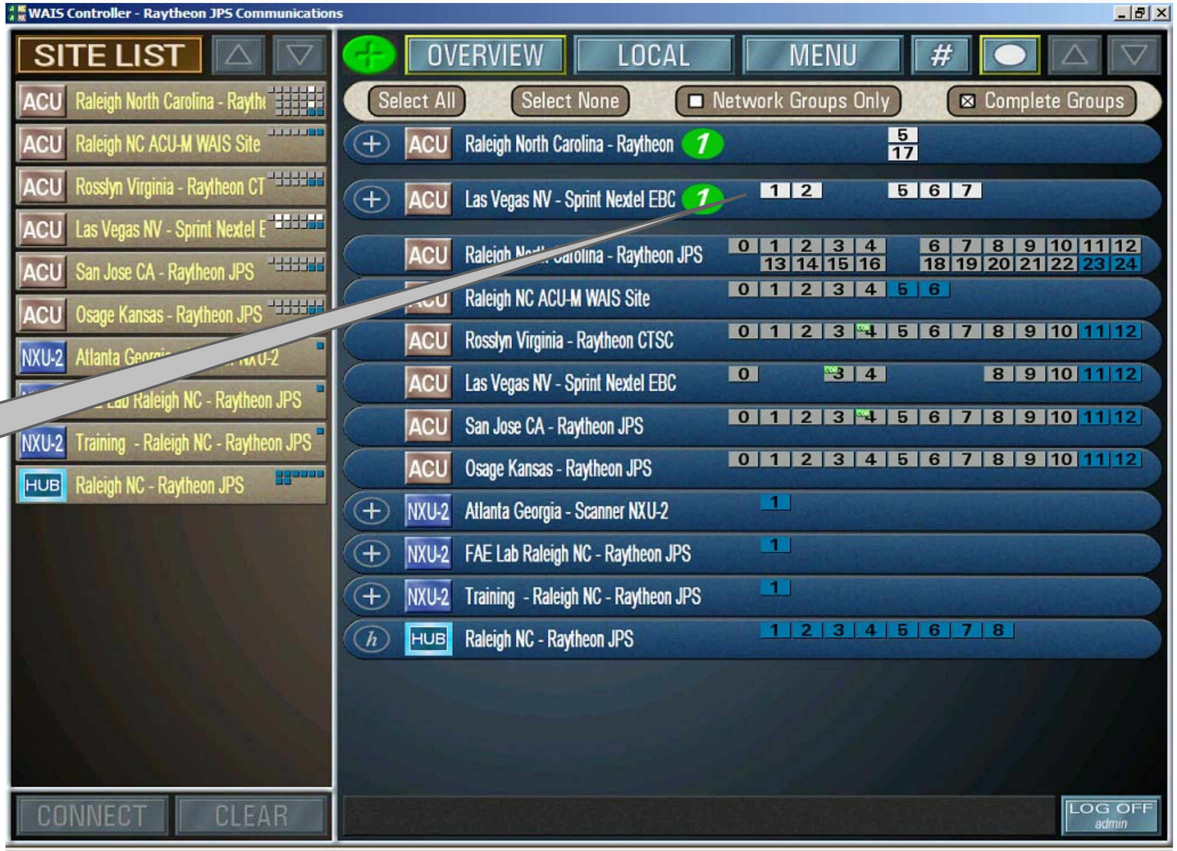
- Controlling the ACU-1000
  - DTMF Commands from remote devices
  - Operational Commands using HSP-2x Keypad
  - ACU Controller Software



Use Mouse or Touch Screen to manage connections

ACU-1000

- Controlling the ACU-1000
  - DTMF Commands from remote devices
  - Operational Commands using HSP-2x Keypad
  - ACU Controller Software
  - WAIS Controller Software


WAIS Controller - Raytheon JPS Communications
SITE LIST
ACU Raleigh North Carolina - Raythe
ACU Raleigh NC ACU-M WAIS Site
ACU Rosslyn Virginia - Raytheon CT
ACU Las Vegas NV - Sprint Nextel E
ACU San Jose CA - Raytheon JPS
ACU Osage Kansas - Raytheon JPS
NXU-2 Atlanta Georgia
Lab Raleigh NC - Raytheon JPS
NXU-2 Training - Raleigh NC - Raytheon JPS
HUB Raleigh NC - Raytheon JPS
CONNECT
CLEAR
OVERVIEW
LOCAL
MENU
#
Select All
Select None
☐ Network Groups Only
☒ Complete Groups
ACU Raleigh North Carolina - Raytheon 1
ACU Las Vegas NV - Sprint Nextel EBC 1
ACU Raleigh North Carolina - Raytheon JPS
ACU Raleigh NC ACU-M WAIS Site
ACU Rosslyn Virginia - Raytheon CTSC
ACU Las Vegas NV - Sprint Nextel EBC
ACU San Jose CA - Raytheon JPS
ACU Osage Kansas - Raytheon JPS
NXU-2 Atlanta Georgia - Scanner NXU-2
NXU-2 FAE Lab Raleigh NC - Raytheon JPS
NXU-2 Training - Raleigh NC - Raytheon JPS
HUB Raleigh NC - Raytheon JPS
LOG OFF
admin

Use Mouse or Touch Screen to manage connections

Product Introduction

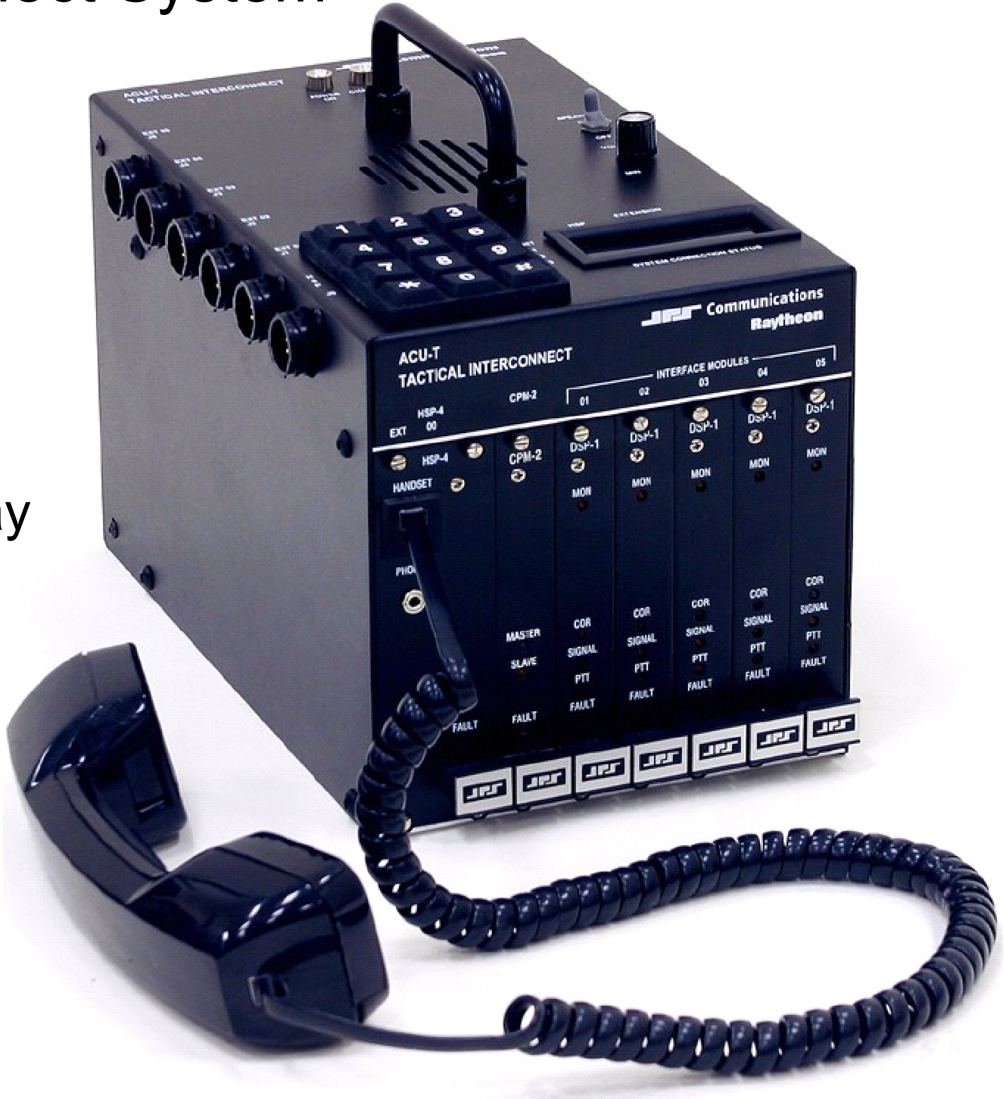
ACU-T

ACU-T

- Tactical Intelligent Interconnect System
  - Provides Interoperable Communications between disparate radio systems (HF, VHF, UHF, P25, Trunk, Conventional, iDEN, Satellite) like its big brother, the ACU-1000
  - The ACU-T has the same features as the ACU-1000 except it supports five communication assets

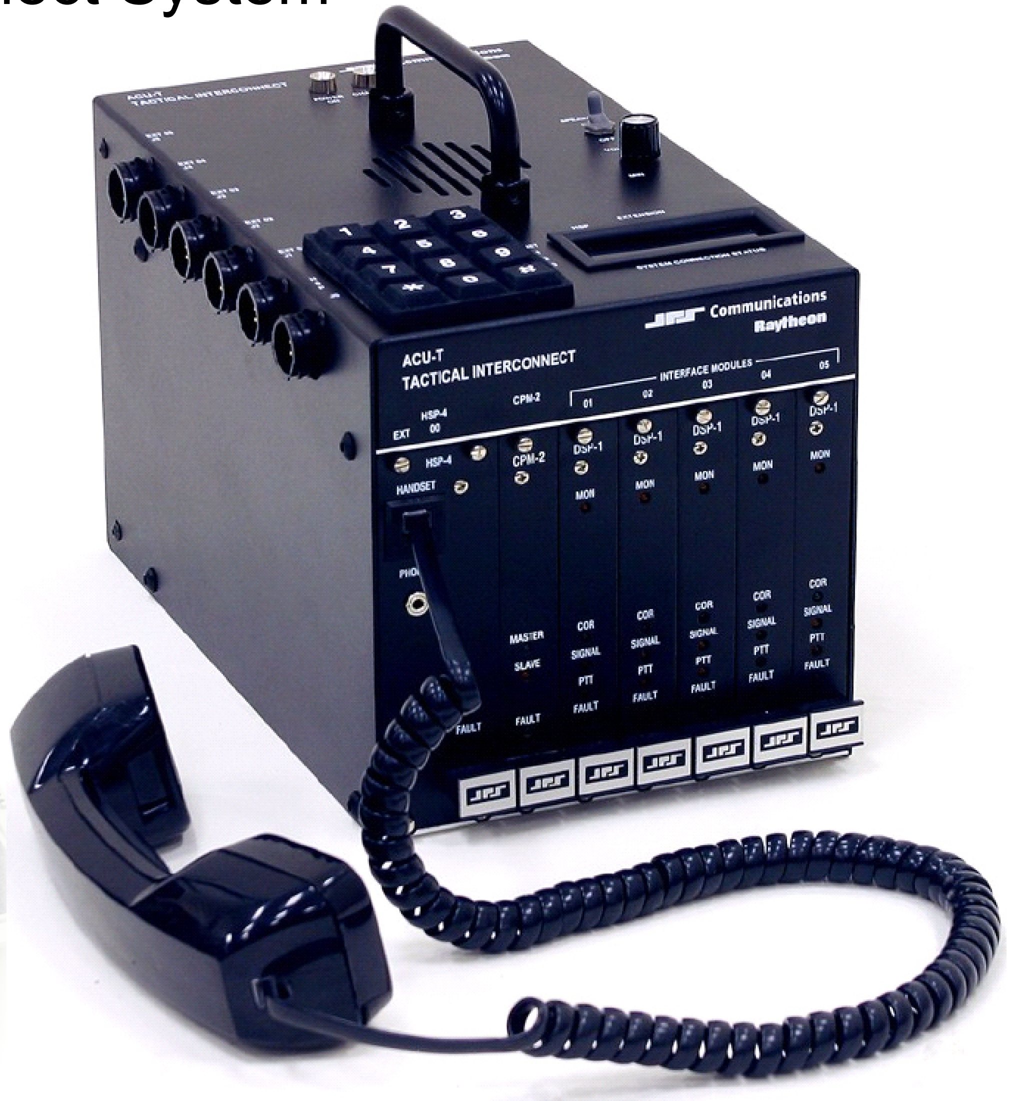
ACU-T

- Tactical Intelligent Interconnect System
  - Accepts (5) Interface Modules
  - Interface cables are interchangeable
  - Integral LED Connection Display
  - Ruggidized Metal Case
  - Dust & Water Resistant



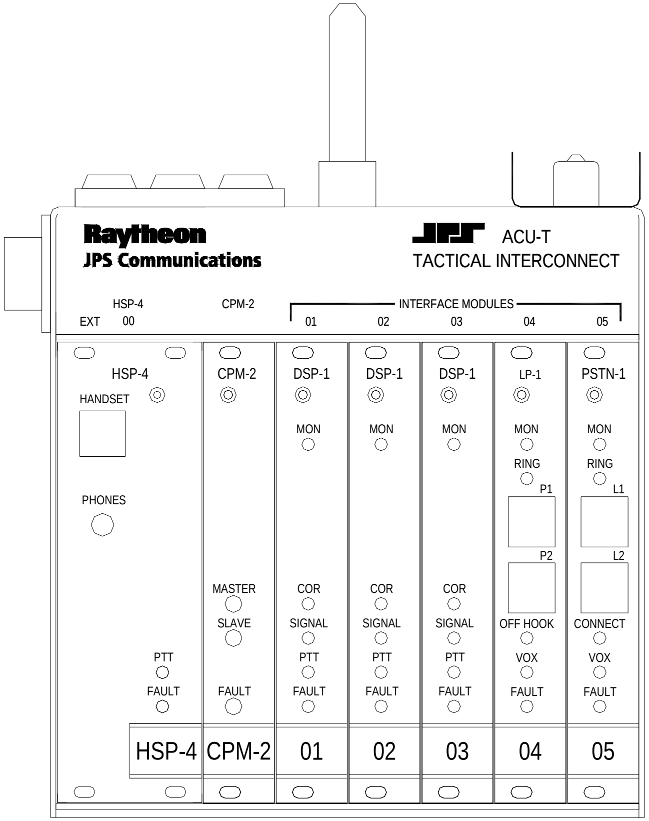
ACU-T

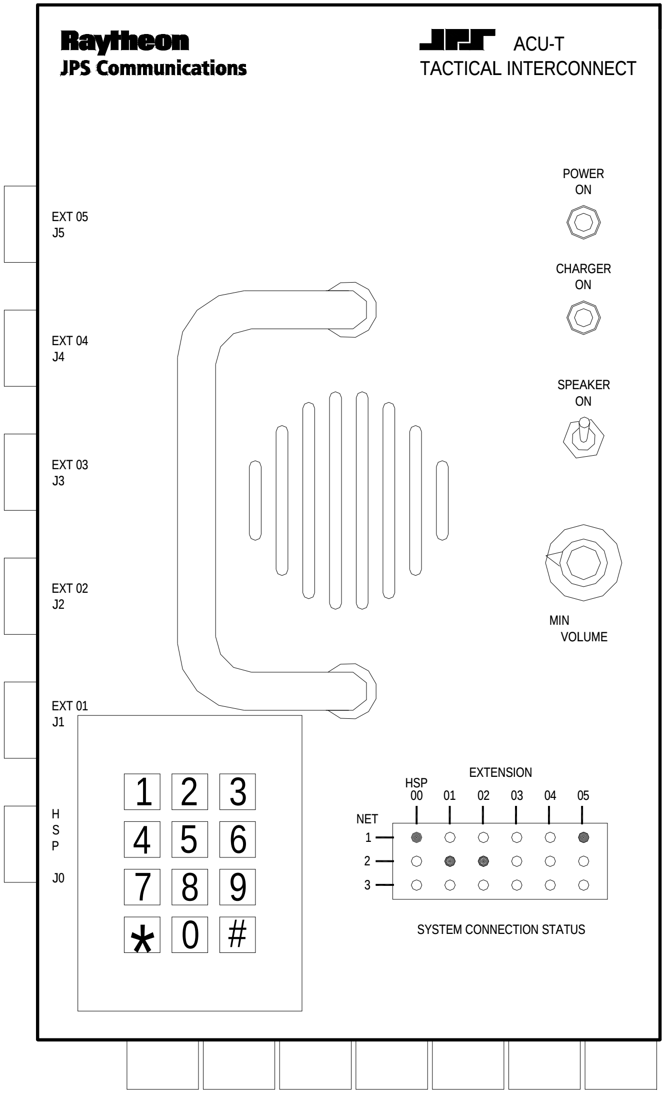
- Tactical Intelligent Interconnect System
  - Optional Bundle Kit includes Case
    - Gel-Cell Battery (18 AH)
    - Charging System



ACU-T

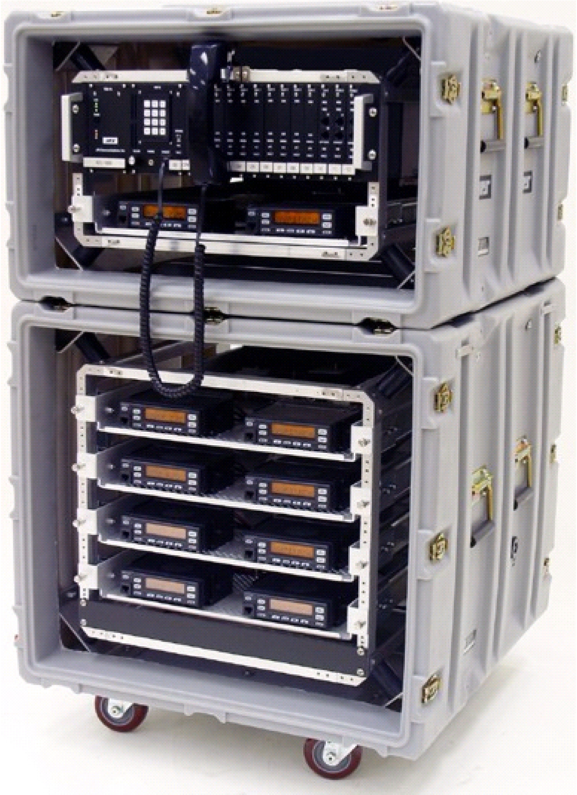
- Tactical Intelligent Interconnect System
  - – ACU-T Views





Product Introduction

TRP-1000

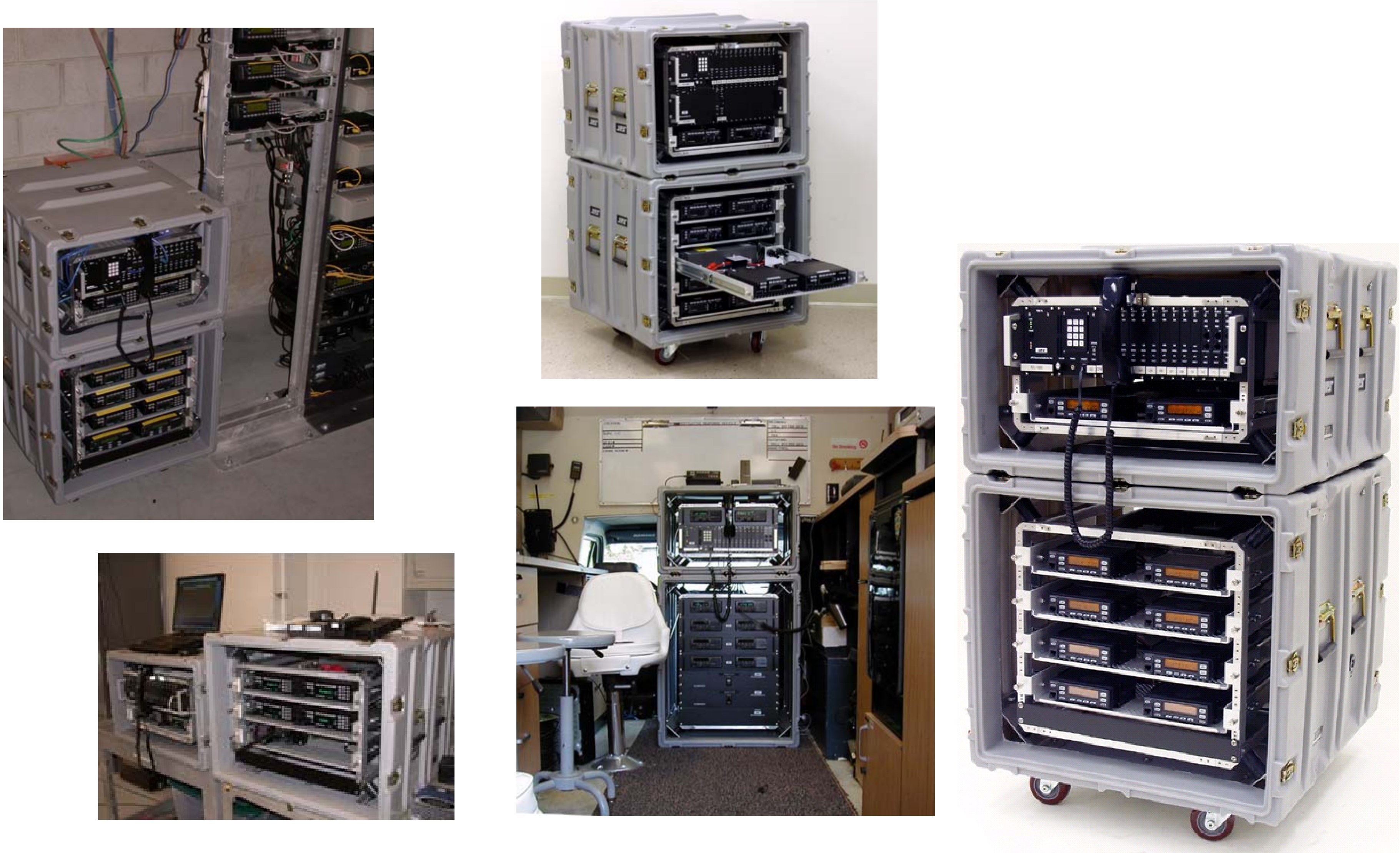


TRP-1000

- Transportable Radio Interoperability System
  - Consists of one or more transportable cases, depending upon mission
  - Includes pre-cabled single or dual ACU-1000’s, link radios on slide-out trays, integrated power system
  - Simple & quick deployment

TRP-1000

- Transportable Radio Interoperability System



Product Introduction

ACU-M

ACU-M

- Mission Critical Radio Interoperability
  - Provides Interoperable Communications between disparate radio systems (HF, VHF, UHF, P25, Trunk, Conventional, iDEN, Satellite)
  - Optional VoIP/RoIP capabilities for network transport of audio
  - Newest addition to the ACU line of products

ACU-M

- Mission Critical Radio Interoperability
  - Intuitive interface enables sure operation and provides field diagnostics and programming capabilities.
    - Internal pre-configured radio template library for all supported devices
    - Can be used with or without the ACU Controller Software
  - Network capabilities allow linking audio to remote ACU-1000, ACU-T, TRP-1000, NXU-2A, and other ACU-M's
    - and can be incorporated into a WAIS system

ACU-M

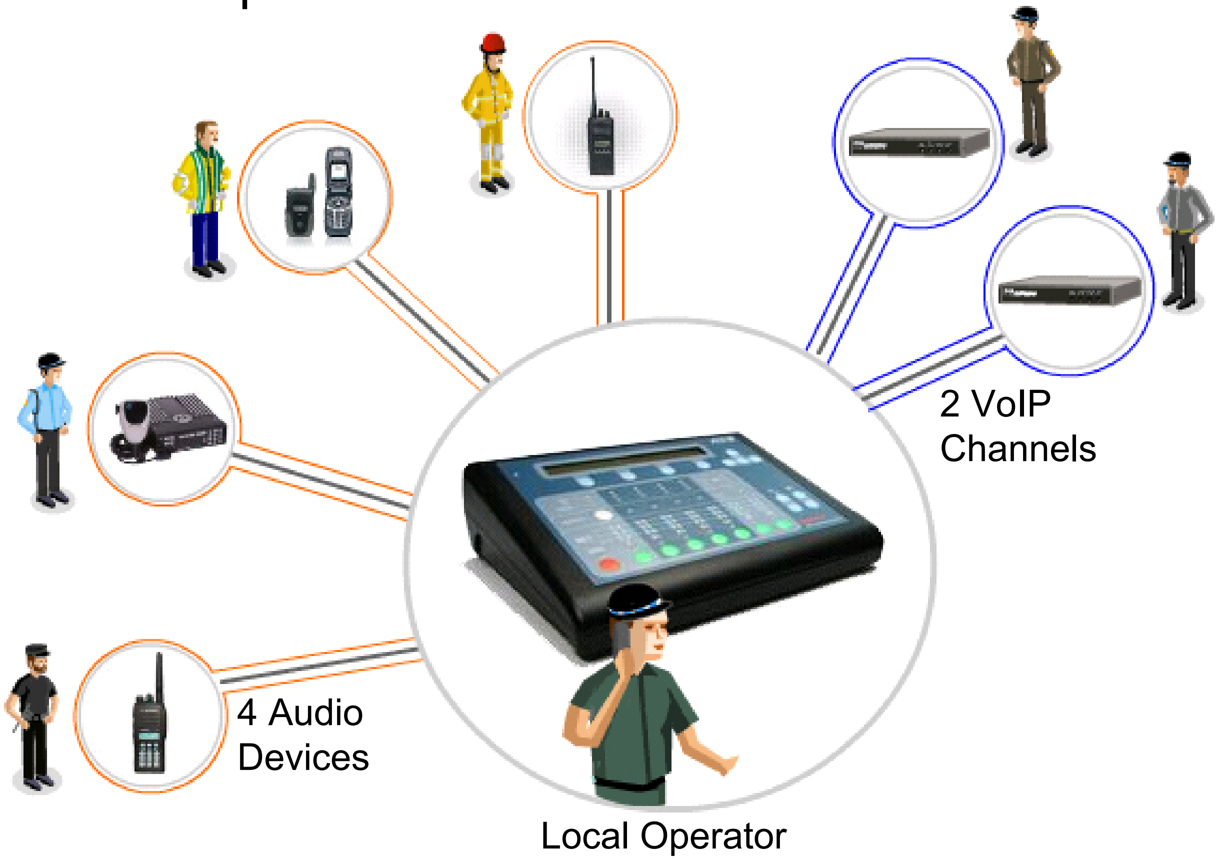
- Mission Critical Radio Interoperability
  - Top mount display provides:
    - Quick indication of current interoperability cross-connections
    - Displays the status of connected devices (COR, PTT, signal, and network links).
    - Loading of Radio Templates
  - Options include:
    - (2) VoIP / RoIP Channels (Key Enabled)
    - Armored Tactical Case (battery and AC power)

ACU-M

- Mission Critical Radio Interoperability
  - – Other included features:
    - ☐ Dynamic Handset
    - ☐ RX Audio: Balanced / Unbalanced High Impedance (-26 dBm to +12 dBm)
    - ☐ RX Audio Squelch Types: Hardwire COR, VOX & VMR
    - ☐ TX Audio: Unbalanced 600 Ohms (-26 dBm to +12 dBm)
    - ☐ RX Audio Delay (100 msec to 300 msec)
    - ☐ TX Audio Delay (0 msec to 2.6 sec)
    - ☐ Repeater Ping Pong Mitigation
    - ☐ Self Diagnostics
    - ☐ Integral Voice Prompts
    - ☐ Self-Paced Training CD
    - ☐ 8 x 11 inch footprint

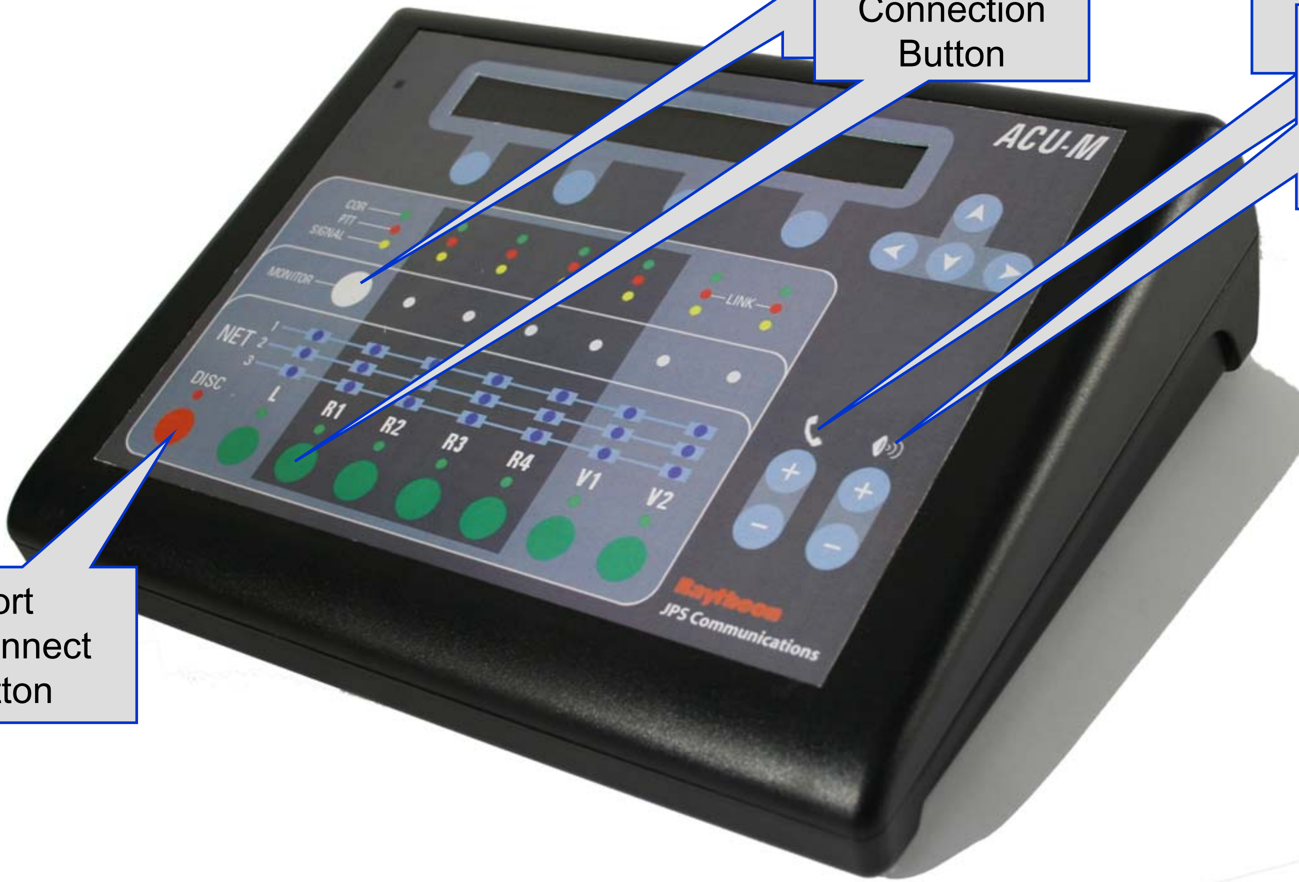
ACU-M

- Provides interoperability between
  - Up to (4) audio devices (LMR, Dispatch Console, Basestations ,etc)
  - (1) Local Operator
  - (2) optional VoIP ports



ACU-M

- Front Panel Controls



Port Selection Cross Connection Button

Handset & Headset

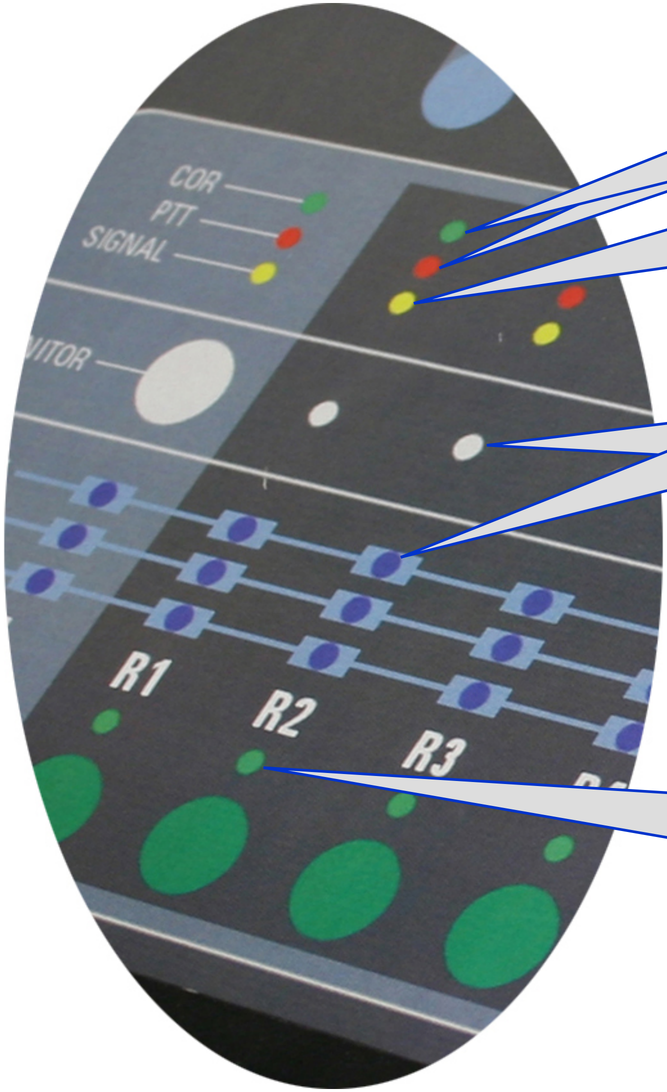
Internal & External Speaker Volume

Port Disconnect Button

SKIP

ACU-M

- Front Panel Controls



COR Status LED - Indicates link radio is receiving

audio strength at the port

Net LED- Indicates cross-connected ports

ED-
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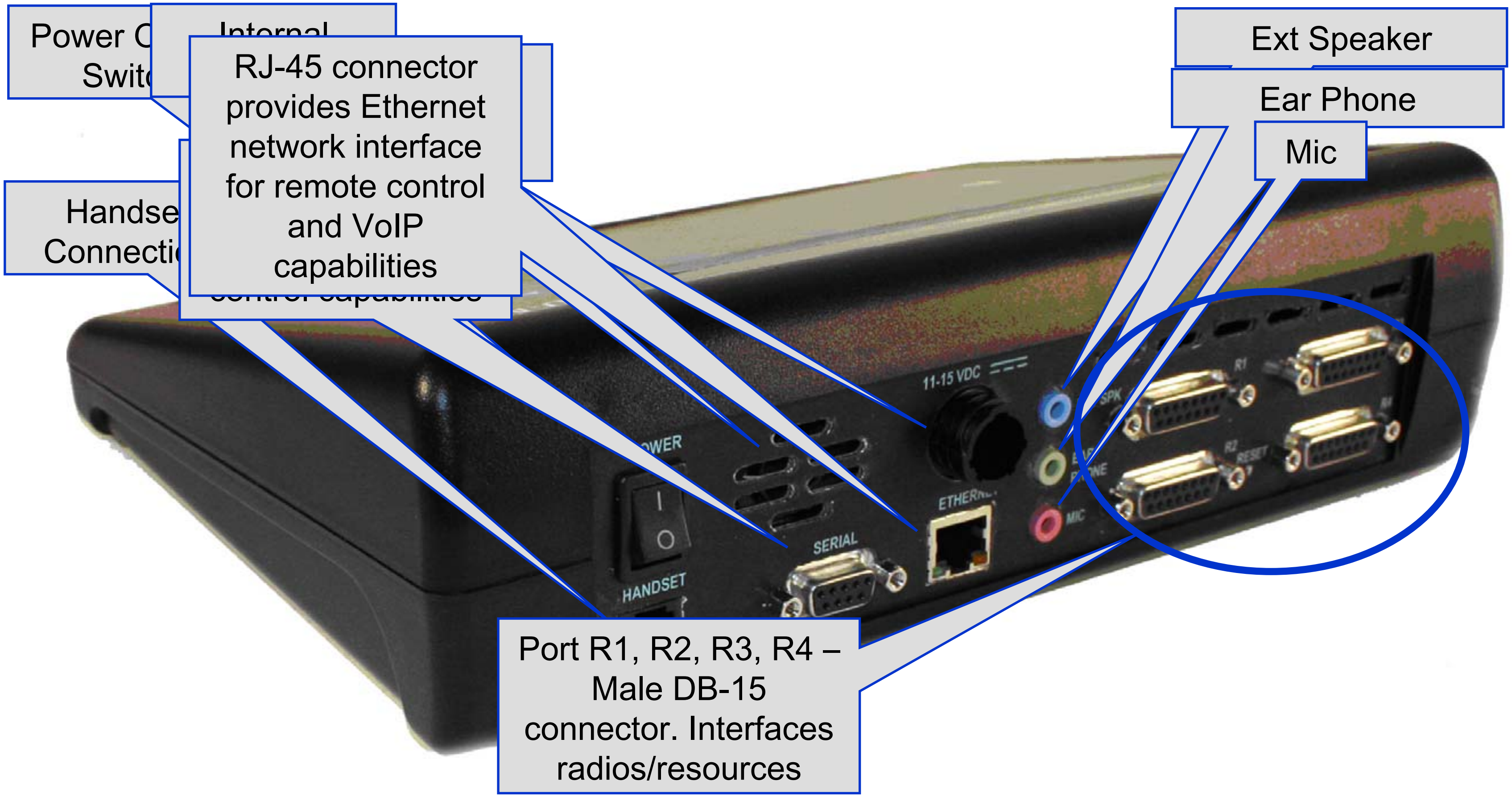
or

Port LED-Momentary indication of port selection prior to connection.

ACU-M

- Rear Panel Description & Connections



Power O
Swit

Internal

Handse
Connecti

control capabilities

RJ-45 connector provides Ethernet network interface for remote control and VoIP capabilities

Ext Speaker

Ear Phone

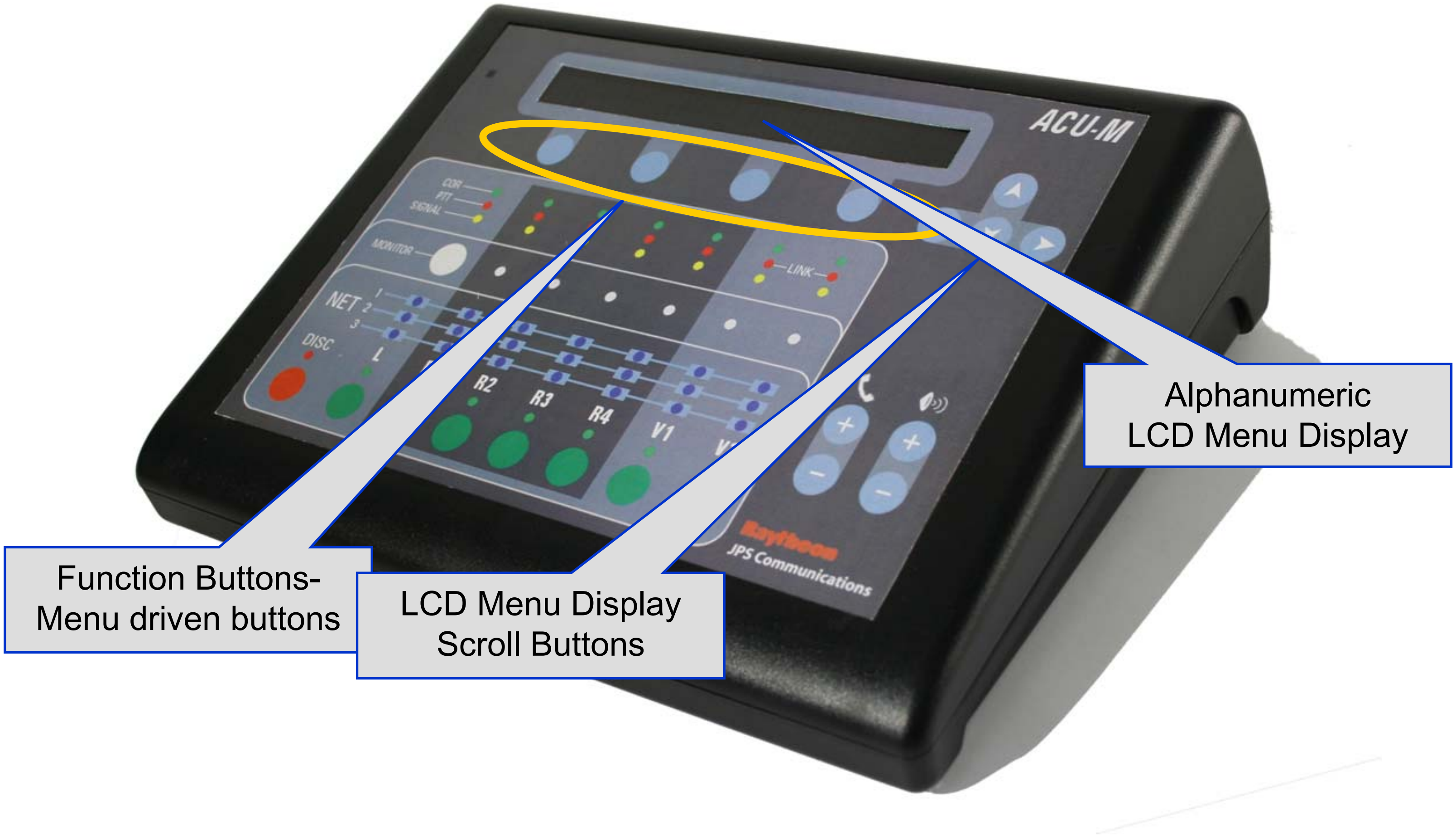
Mic

Port R1, R2, R3, R4 – Male DB-15 connector. Interfaces radios/resources

SKIP

ACU-M

- Configuration Buttons & Display



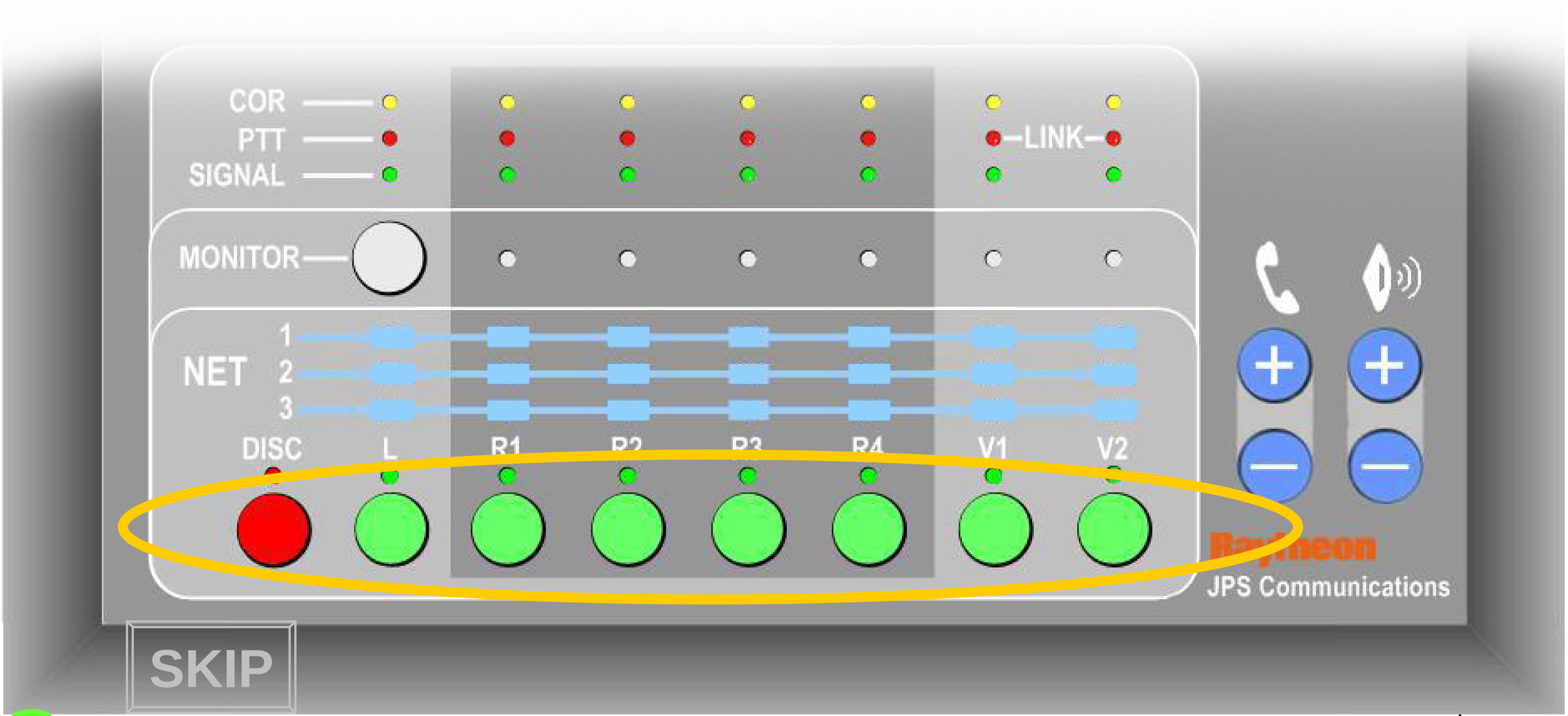
Alphanumeric
LCD Menu Display

Function Buttons-
Menu driven buttons

LCD Menu Display
Scroll Buttons

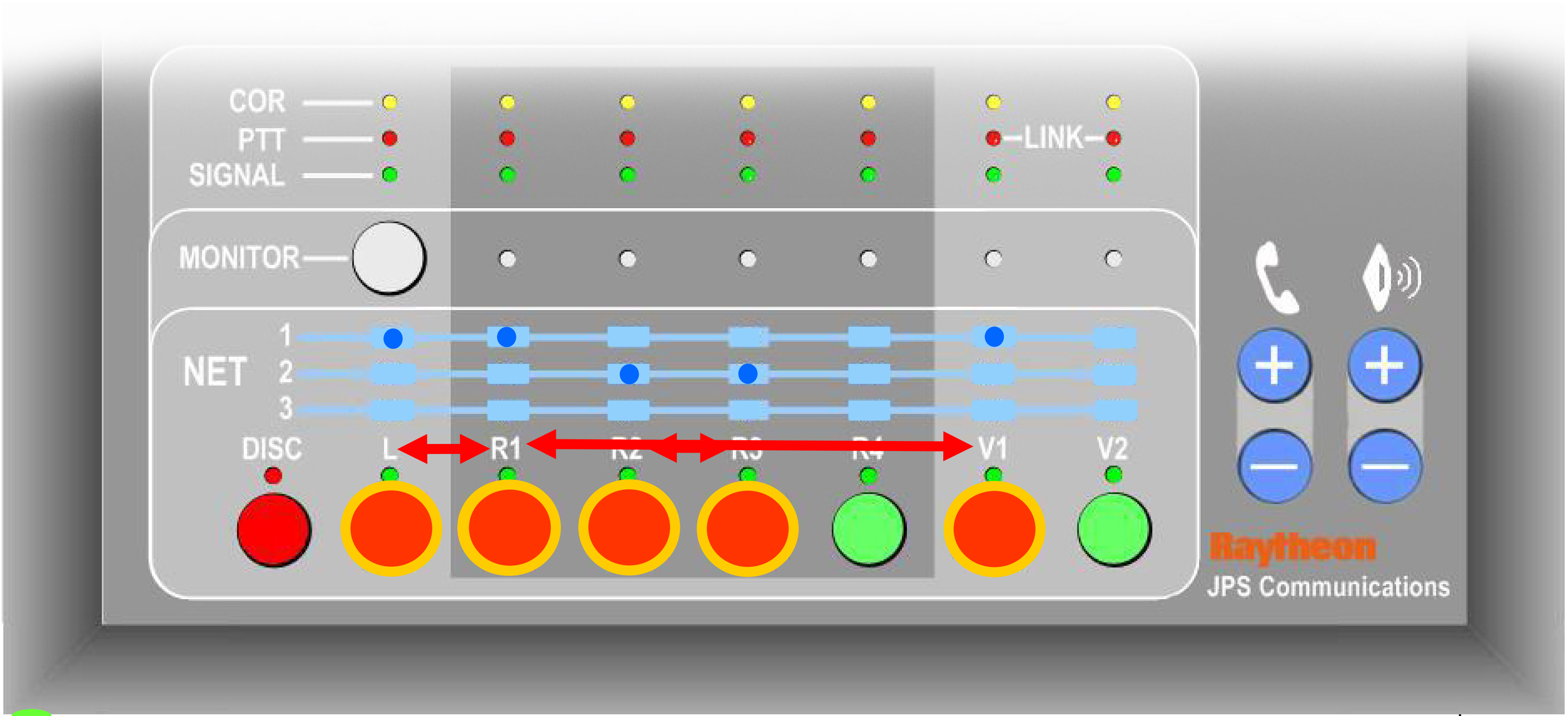
ACU-M

- Creating a Cross Connection
  - Once the Link Radios have been connected to the "R" ports of the ACU-M Cross-Connections can be created using the front panel buttons.



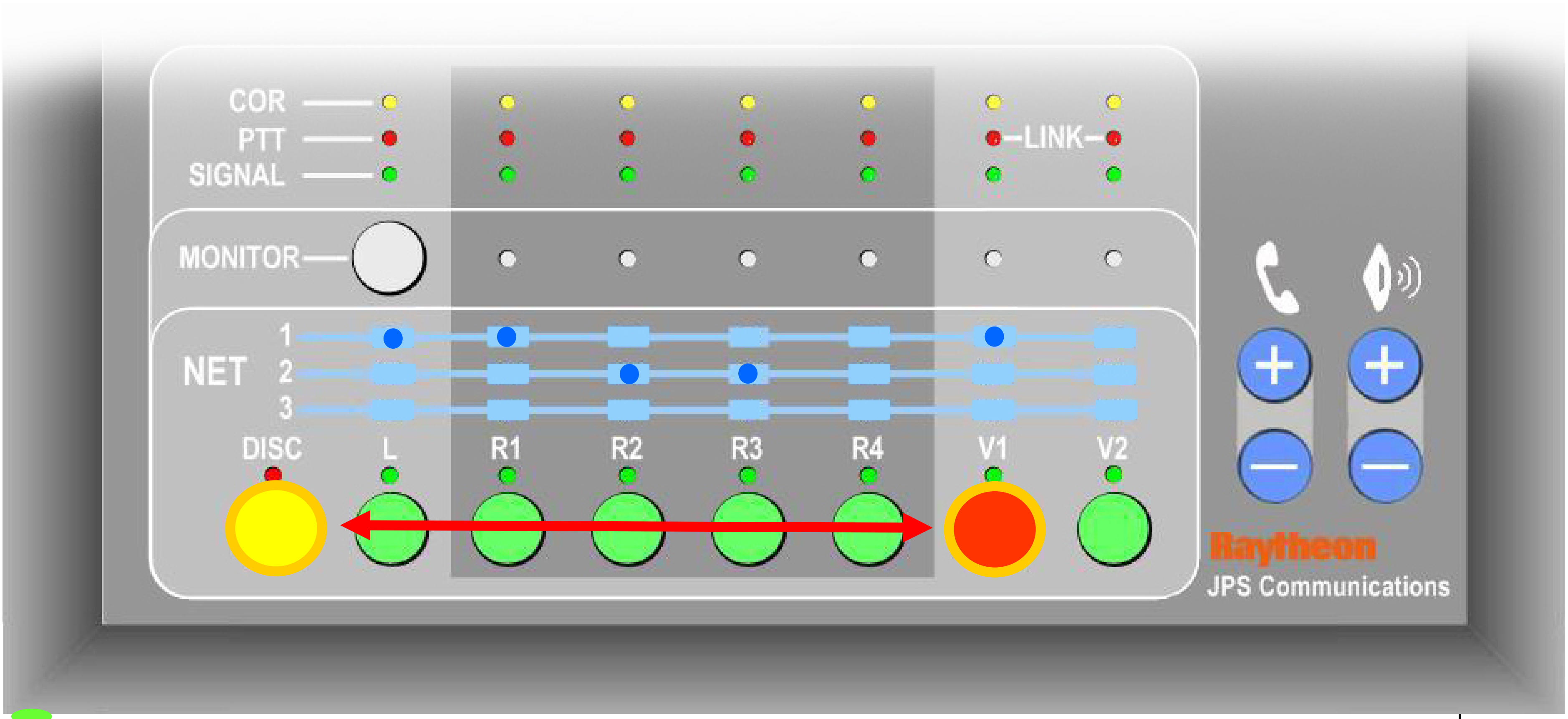
ACU-M

- Creating a Cross Connection
  - Simply pressing two of the buttons will link the two ports



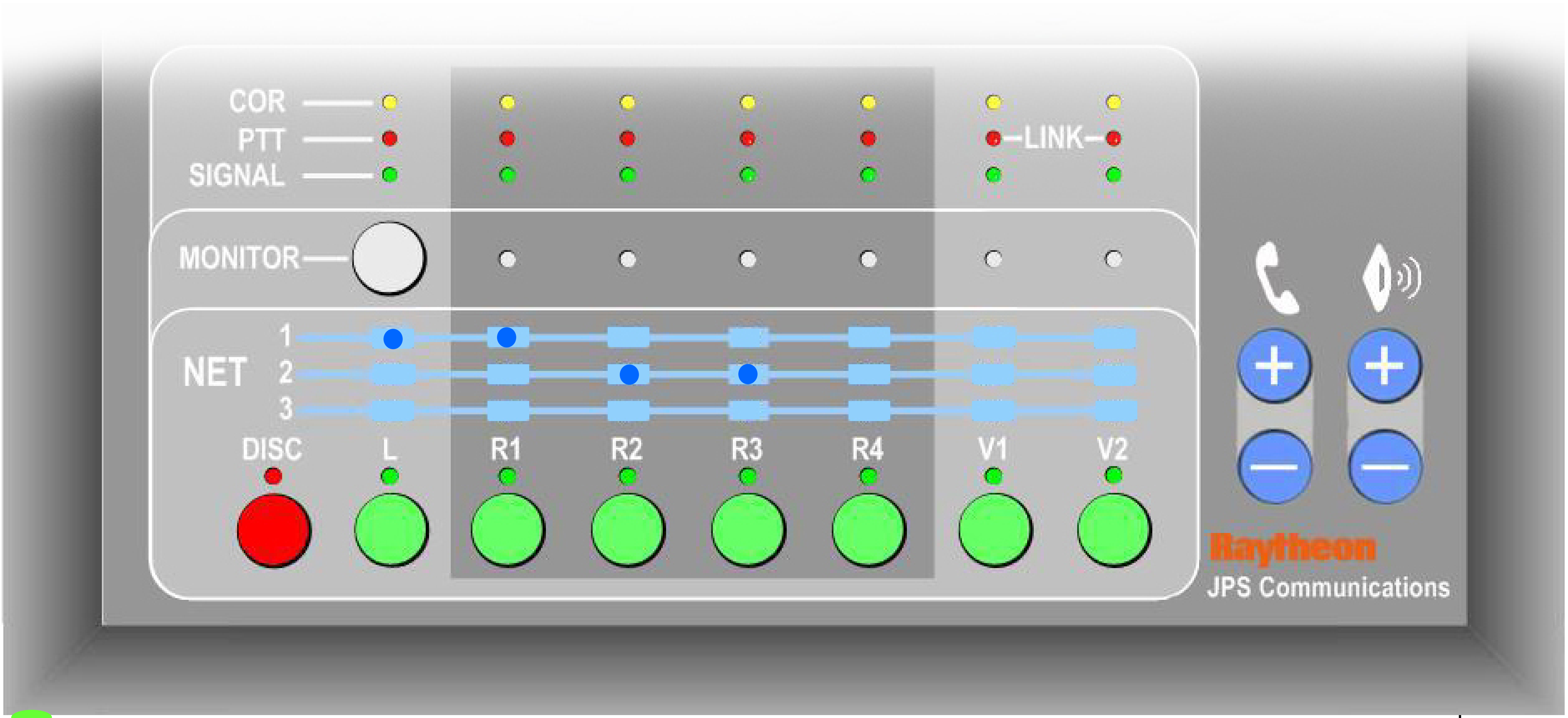
ACU-M

- Disconnect a Cross Connection
  - To disconnect an asset from a NET
    - ☐ Press the DISC button
    - ☐ Then press the Resource button



ACU-M

- Creating a Monitor Connection
  - Local Operator (L) can monitor any other asset



ACU-M

- Net Control Options
  - Connect All
    - Creates a single Net to include ALL ports (L, R1, R2, R3, R4, V1, V2)
  - Disconnect All
    - Disconnect ALL ports from any existing Nets
  - Power ON Configuration
    - One Net configuration will be restored each time the ACU-M is powered-ON
  - ACU Controller Configuration Files
    - Use the ACU Controller to save/load configurations

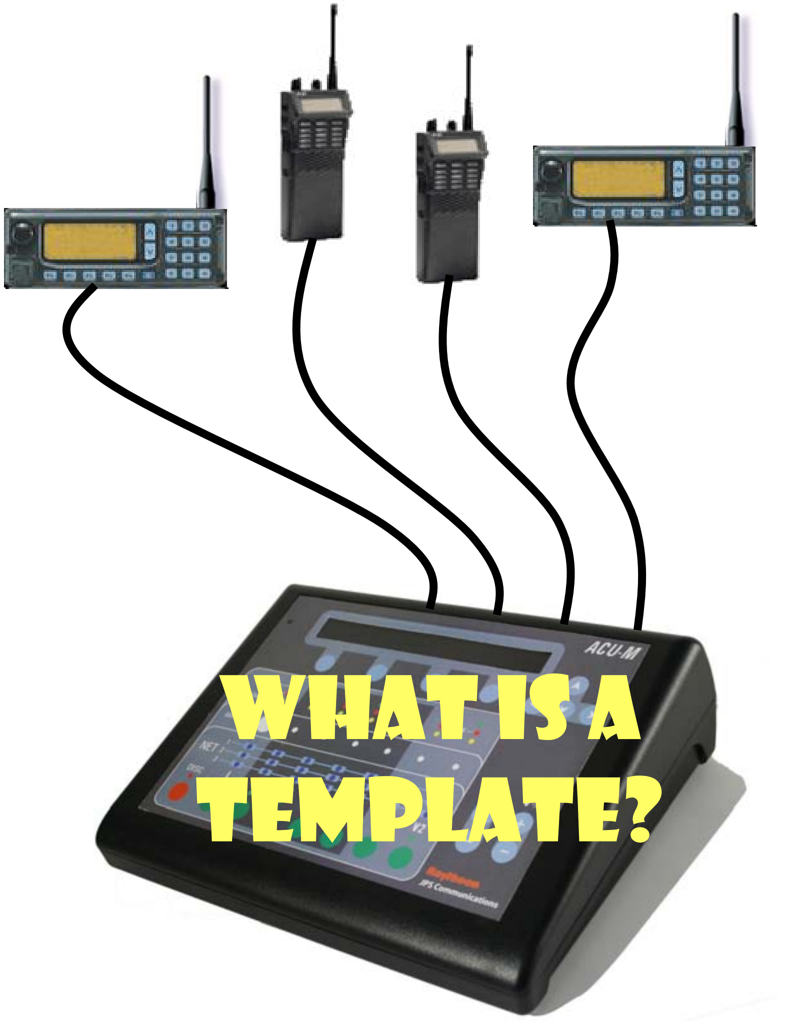
Raytheon
Customer Success Is Our Mission

Port Configuration using Integral Templates

What is a Template?

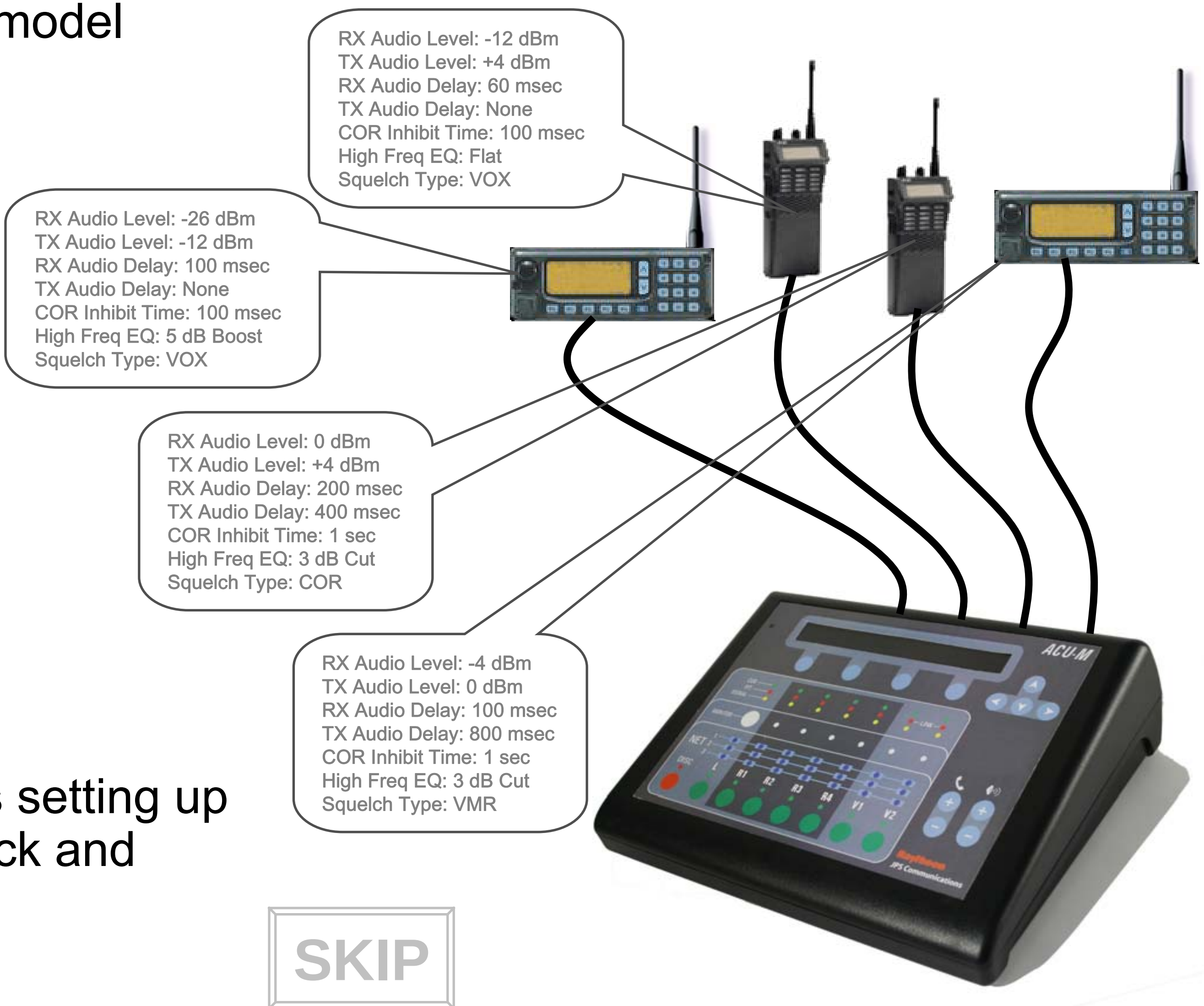
- When we select a radio to be connected to an ACU-M we must:
  - Decide which port to use (R1, R2, R3 or R4)
  - Use the correct Radio Interface Cable
  - Physically modify radio, if required
  - Load specific Radio Template

- Radio Templates by Manufacturer:
  - Bendix King
  - Bosch
  - Codan
  - Datron
  - EF Johnson
  - Ericsson
  - GE
  - ICOM
  - Iridium Motorola
  - Kenwood
  - Midland
  - Mitsubishi
  - MSV
  - Motorola
  - Nextel / Sprint
  - M/A COM
  - Q-MAC
  - Racal
  - Rohode & Schwartz
  - Sepura
  - Tait
  - Thales
  - Vertex



What is a Template?

- A TEMPLATE has recommended ACU-M port settings that are specific to a particular radio model



RX Audio Level: -12 dBm
TX Audio Level: +4 dBm
RX Audio Delay: 60 msec
TX Audio Delay: None
COR Inhibit Time: 100 msec
High Freq EQ: Flat
Squelch Type: VOX

RX Audio Level: -26 dBm
TX Audio Level: -12 dBm
RX Audio Delay: 100 msec
TX Audio Delay: None
COR Inhibit Time: 100 msec
High Freq EQ: 5 dB Boost
Squelch Type: VOX

RX Audio Level: 0 dBm
TX Audio Level: +4 dBm
RX Audio Delay: 200 msec
TX Audio Delay: 400 msec
COR Inhibit Time: 1 sec
High Freq EQ: 3 dB Cut
Squelch Type: COR

RX Audio Level: -4 dBm
TX Audio Level: 0 dBm
RX Audio Delay: 100 msec
TX Audio Delay: 800 msec
COR Inhibit Time: 1 sec
High Freq EQ: 3 dB Cut
Squelch Type: VMR

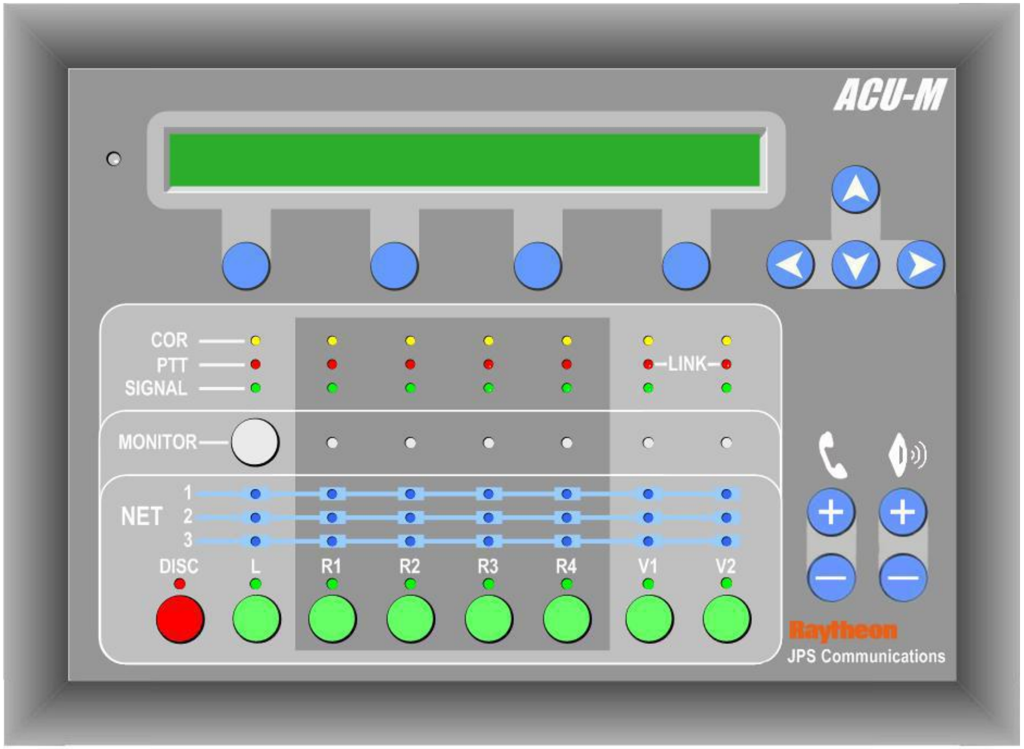
- Templates makes setting up the ACU-M, a quick and simple process

SKIP

Port Configuration

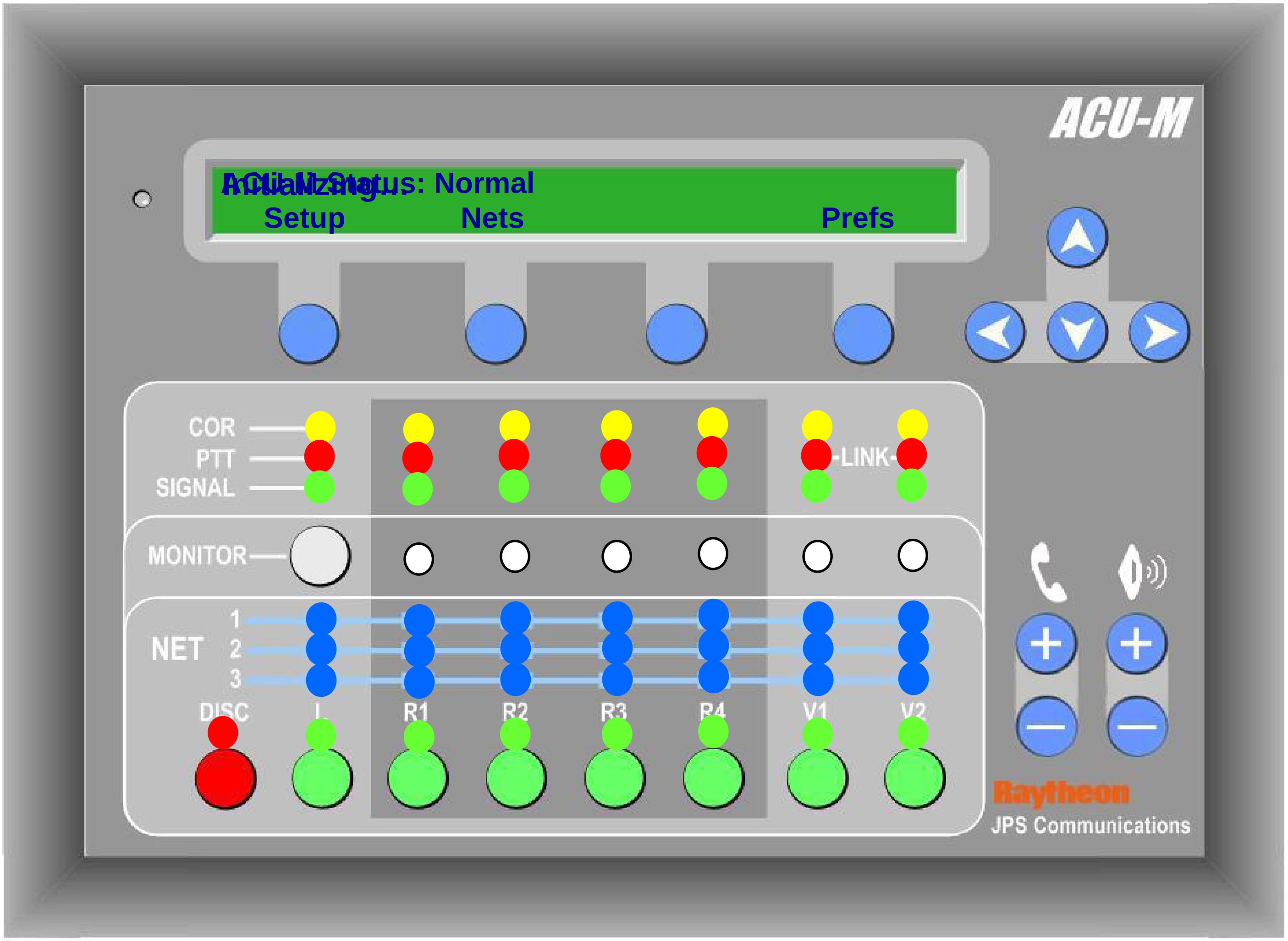
- Let’s begin our setup for this example:
  - Radio: Kenwood TK-680 Mobile
  - Radio Interface Cable: 5961-291174
  - ACU-M Port: R1

Application Note



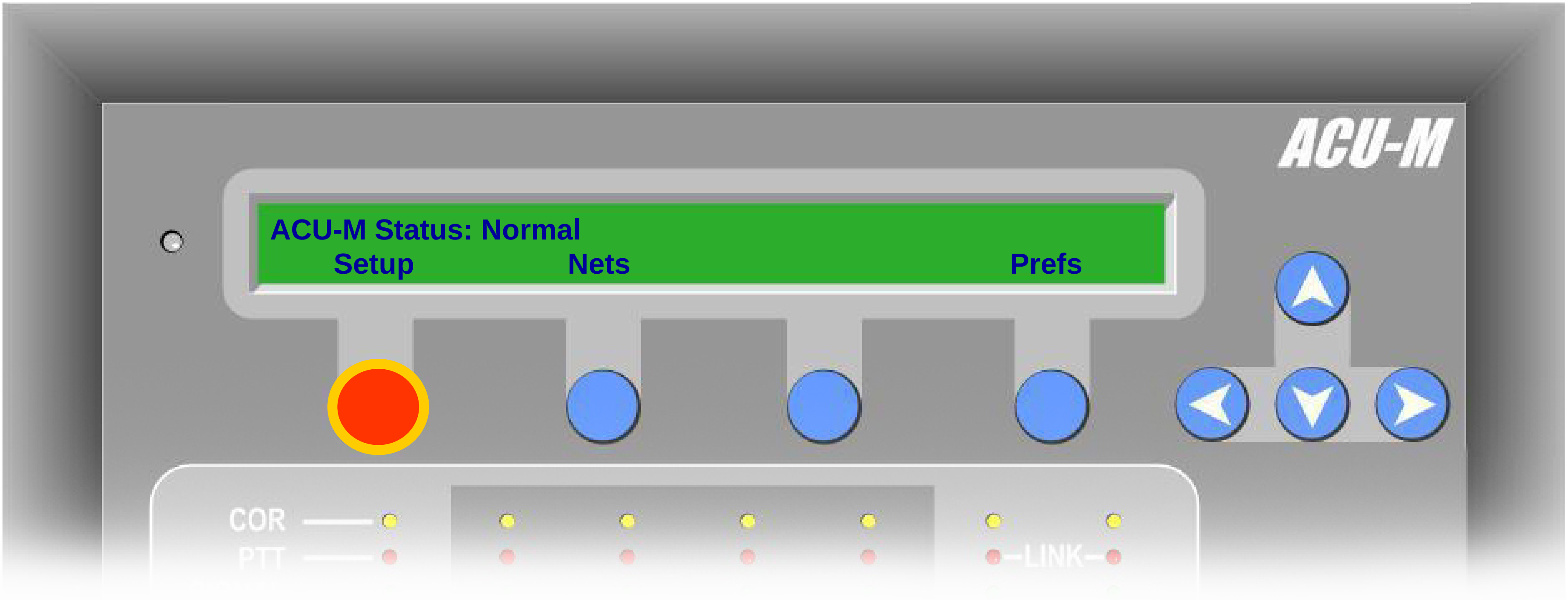
Port Configuration

- Turn ON the ACU-M
- The unit will take a few seconds to complete the initialization process



Port Configuration

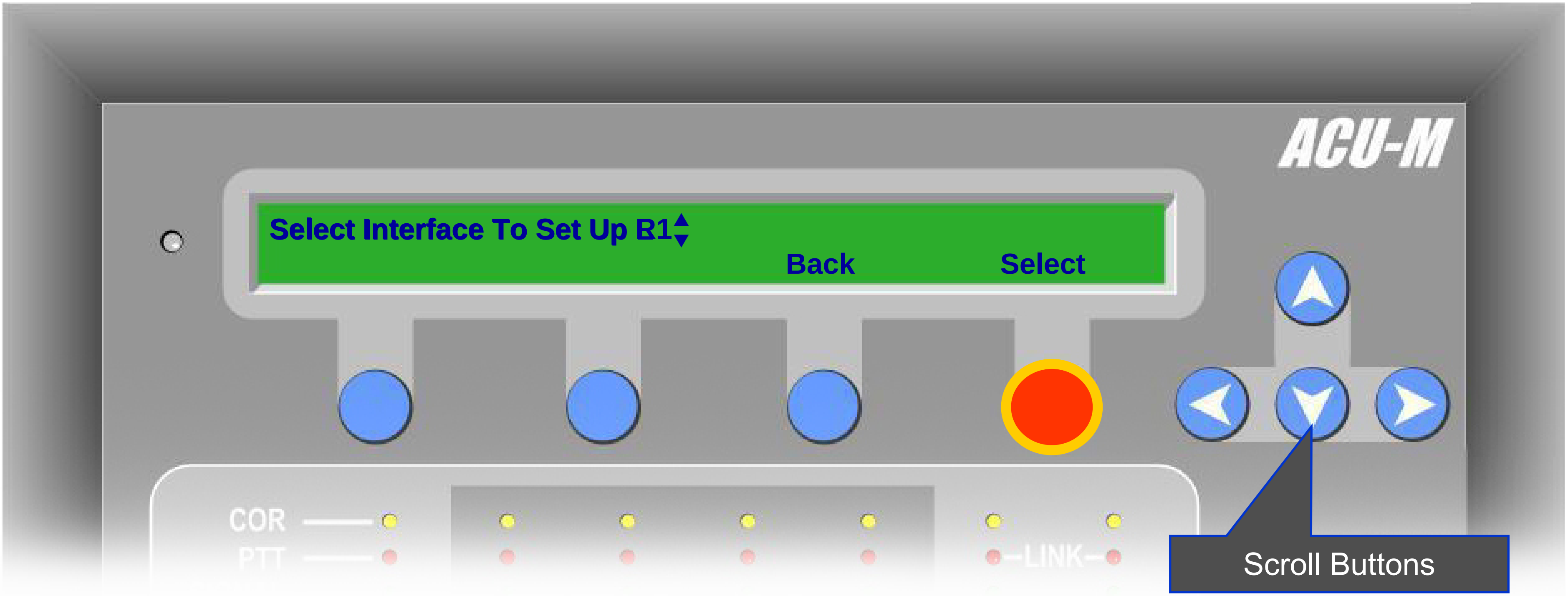
- The ACU-M is ready for port configuration



- To begin port configuration press the SETUP button

Port Configuration

- Select the Port

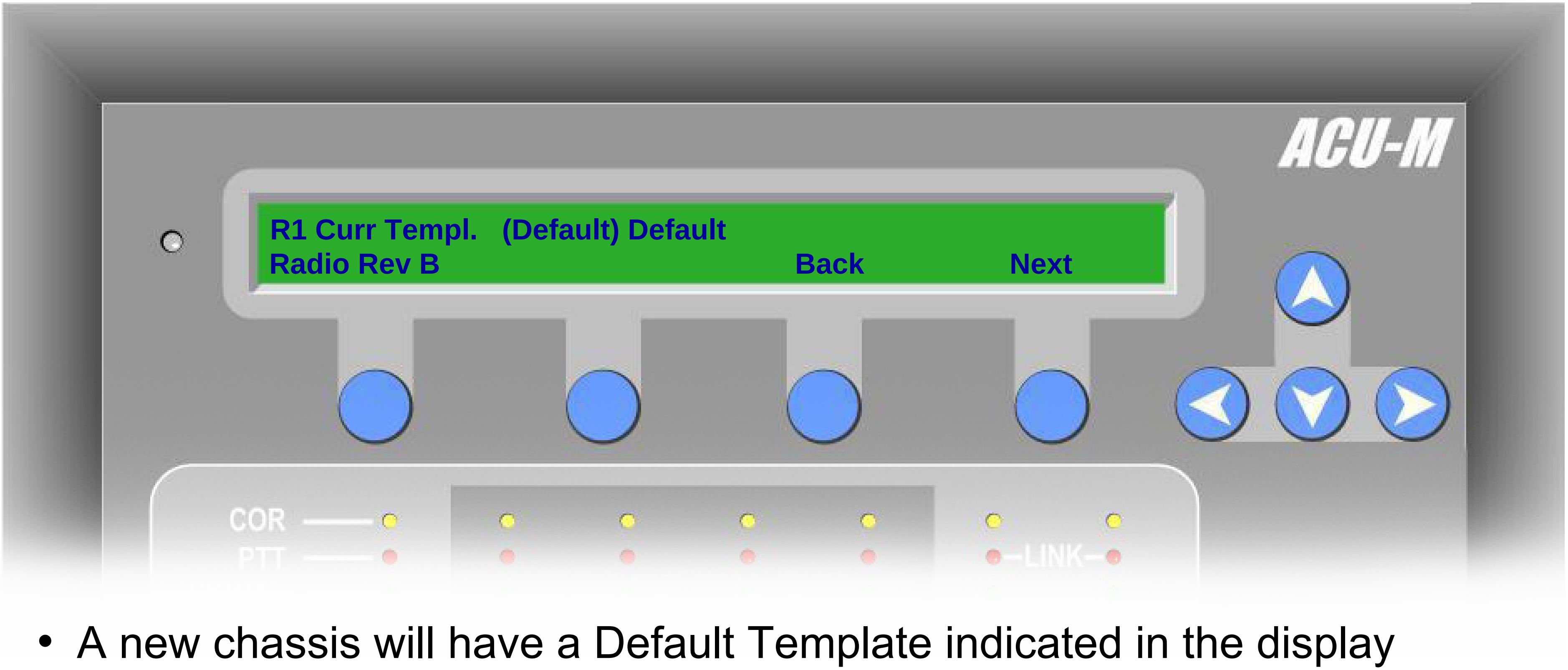


Select Interface To Set Up R1

- Use the UP/DOWN SCROLL buttons to select the desired port
- Then, press SELECT to configure port R1
- In this example let’s configure port R1

Port Configuration

- Set Up of Port R1

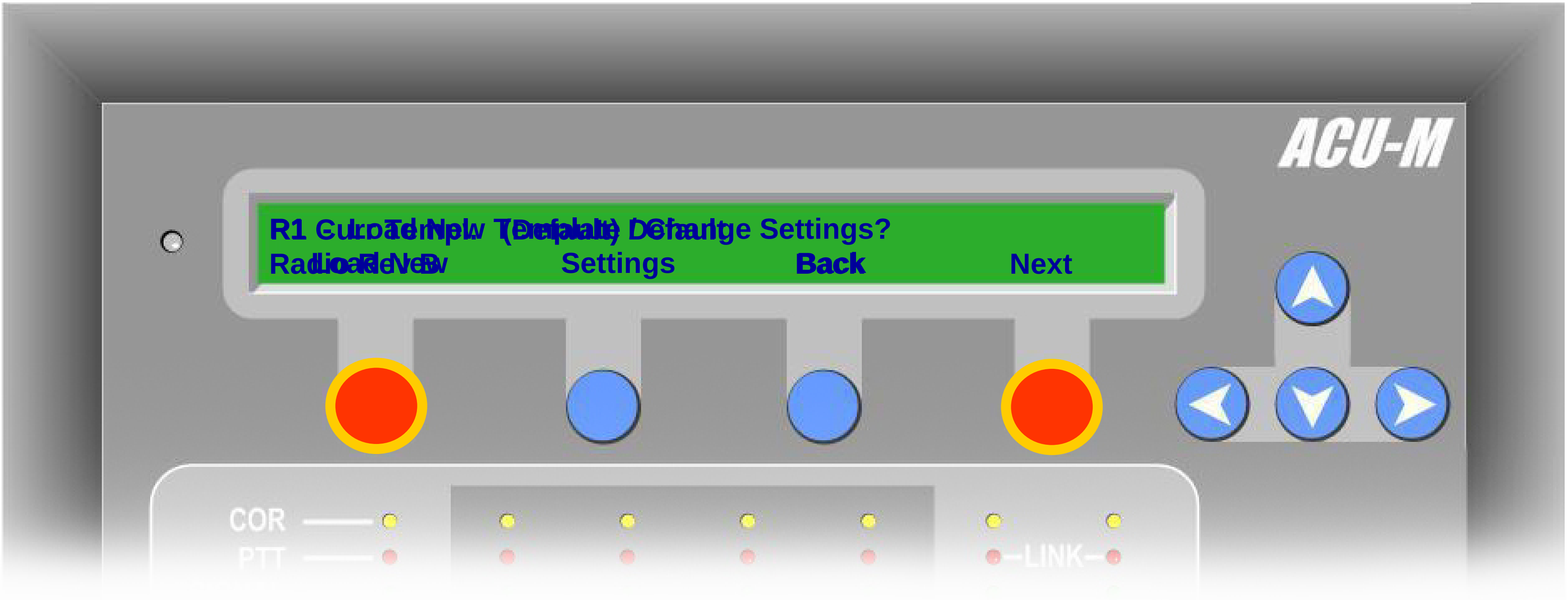


R1 Curr Templ. (Default) Default
Radio Rev B Back Next

- A new chassis will have a Default Template indicated in the display

Port Configuration

- Set Up of Port R1



R1 Current Template (Default)
Radio Rev B

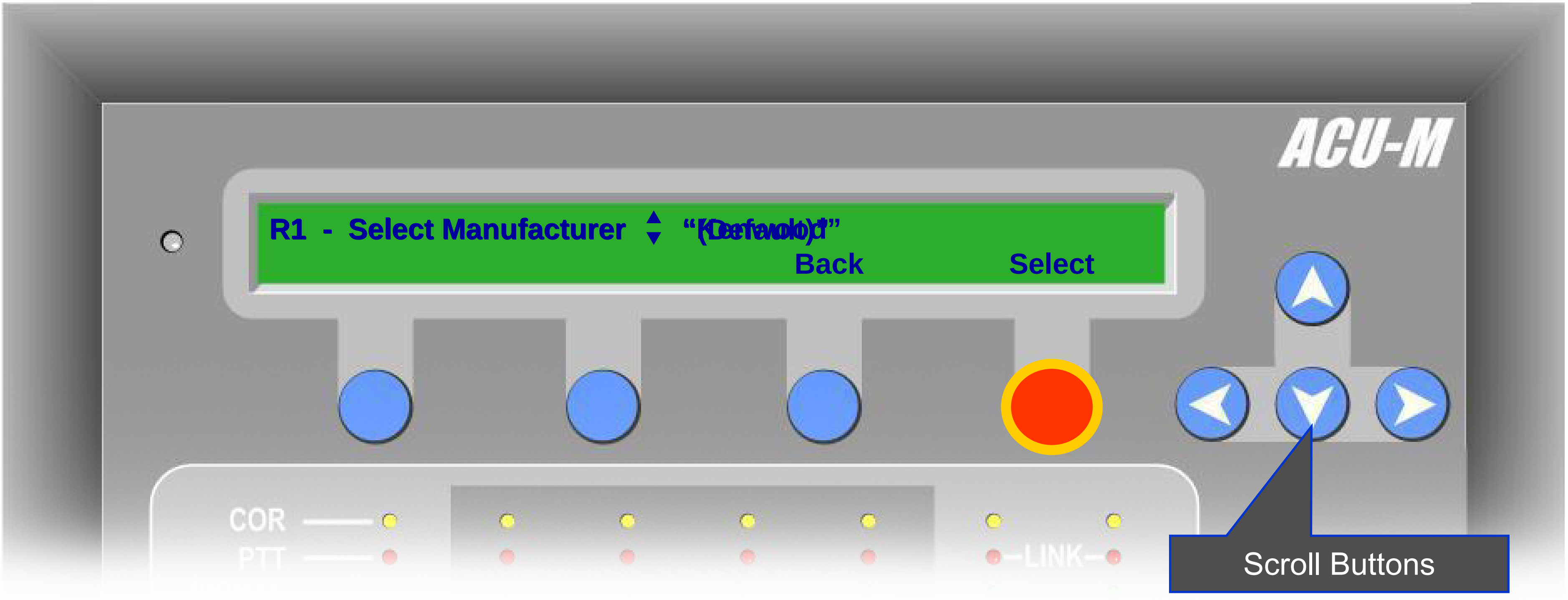
Load New Template or Change Settings?
Load New Settings Back Next

- Press the NEXT button to continue the port setup
- In this example let's configure port R1

- Press the LOAD NEW button to select a radio specific template. Pressing SETTINGS will allow the user to manually modify the settings.

Port Configuration

- Select the Manufacture of the Radio

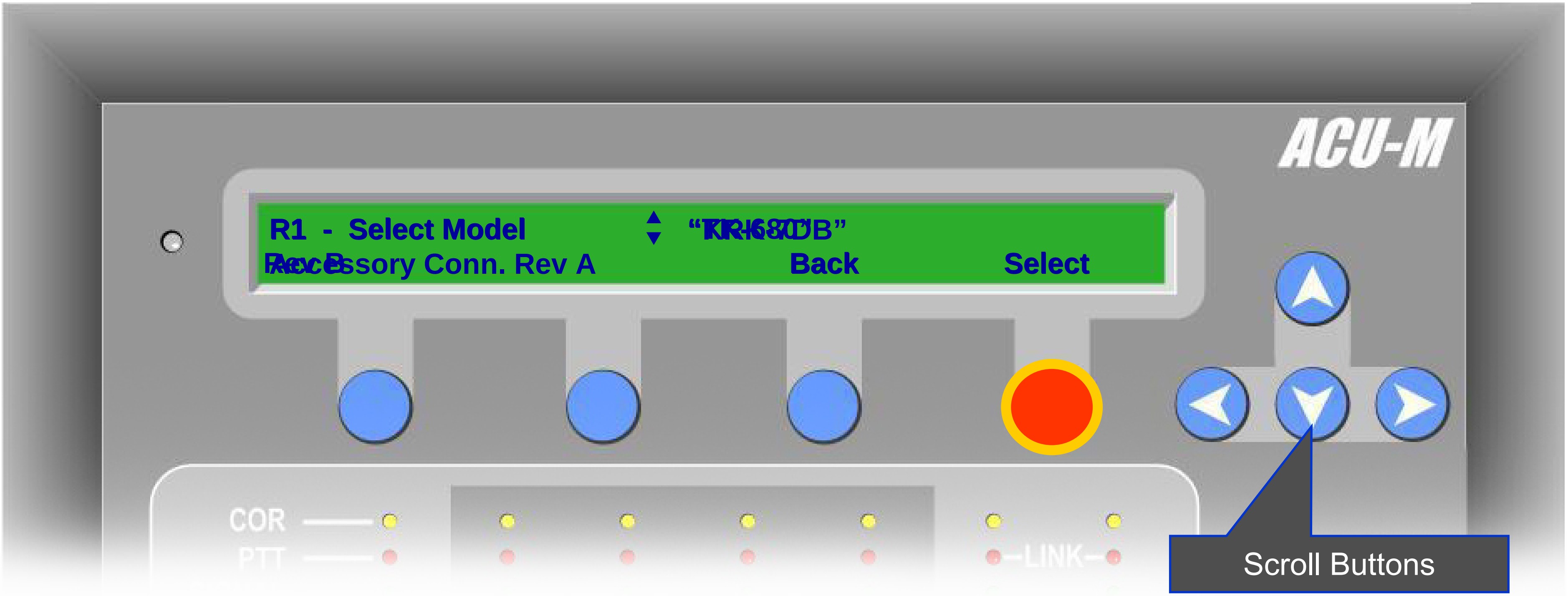


R1 - Select Manufacturer ▲▼ "Kenwood" (Default)
Back Select

- Use the UP/DOWN SCROLL buttons to toggle through the various names of radio manufacturers
- In this example our Radio is "KENWOOD TK-680"
- Press SELECT when "Kenwood" is displayed
- Scroll until "KENWOOD" is displayed

Port Configuration

- Select the Specific Model of Radio

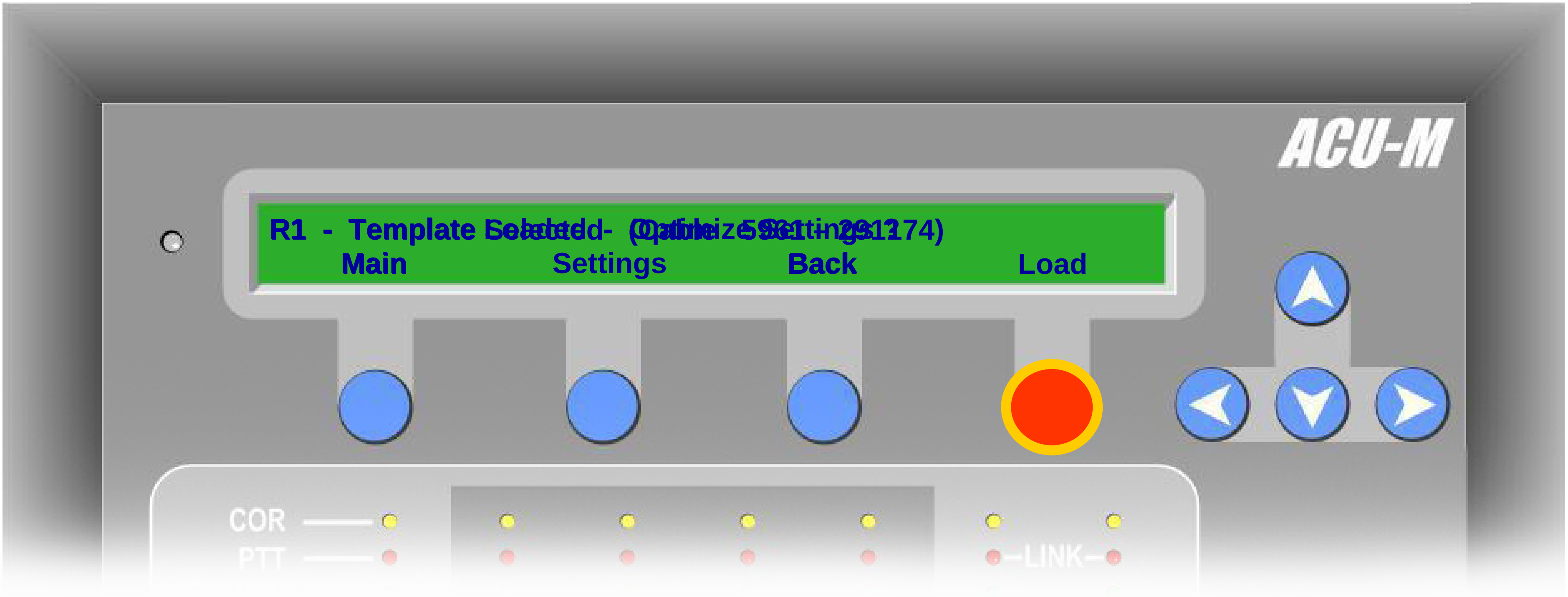


R1 - Select Model ▲▼ “TK-680”
Accessory Conn. Rev A
Rev B Back Select

- Use the UP/DOWN SCROLL buttons to toggle through the various templates for Kenwood until the TK-680 template is displayed
- Press the SELECT button to continue

Port Configuration

- Commit the Configuration



R1 - Template Selected - (Cable 5961-29174)

R1 - Template Loaded - Optimize Settings?

- The display will indicate the JPS Part Number of the Radio Interface cable used with each specific template
- Press LOAD to commit to the configuration

- CONGRATULATIONS!! R1 port has been successfully configured!
- You can now modify and fine tune each setting, if required, by pressing SETTINGS

ACU Technology

- Mission Critical Radio Interoperability

Questions?

Return to Introduction